Clinical Lecture

ON THE

EARLY HISTORY OF CALCULOUS DISEASE,

AND THE TREATMENT BEST ADAPTED FOR ITS PREVENTION.

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BY SIR HENRY THOMPSON,

SURGEON EXTRAORDINARY TO H.M. THE KING OF THE BELGIANS, SURGEON AND PROFESSOR OF CLINICAL SURGERY TO UNIVERSITY COLLEGE HOSPITAL.

GENTLEMEN,—We have recently studied together and discussed very fully the various operations which are practised for the removal of stone from the bladder, and you have had the opportunity of seeing them performed many times, not less than eleven cases having passed through my wards in a few weeks, each one with a successful result.

But, satisfactory as all this is, it suggests to my mind very strongly that there remains an important question for us to consider; as important, indeed, as any of the preceding, and one which must naturally arise in all thinking minds. It is this: Is there not a period anterior to the stage of the malady already examined—a time at which we might prevent the formation of stone in the bladder, and so get rid of the necessity for removing it? Admirable as the results of operative means have been—perfect (one may almost say) as they have become, at all events so far as regards the crushing operation—great as is the triumph which surgery has achieved in removing stone from the bladder—I take it there are very few men indeed who would desire, if they could help it, to exhibit that triumph in their own persons; all would be infinitely better pleased if the formation of stone were prevented, rather than removed, however cleverly you may perform the operation. This, then, leads me to the consideration of an important question,—Can we do anything to prevent the formation of stone in the urinary passages? It is, in fact, the early stage of this malady that will be the subject of our lecture to-day.

I commence by saying that I think a great deal may be done. But at the outset of the inquiry we naturally ask, What is the kind of stone (for there are several kinds) the formation of which we may hope to do most in preventing? All calculi are of local or of constitutional origin. By "local" I mean formed by disease in the bladder, and not depending upon any constitutional conditions; by "constitutional" I mean formed by some vice in the system. Now, the large majority of stones are of constitutional, and not of local origin. When they are local you know that we cannot prevent their formation except by mechanical means. Calculous matter, the elements of which are produced in the bladder itself, may be washed out, or may be broken and then washed out. But when stones are of constitutional origin—and those are what we are going to refer to entirely to-day—the elements are separated from the blood, and no mechanical means of prevention can be thought of for an instant. Now, from observation we know that nineteen out of twenty of such stones have uric acid for their basis, the remaining one in twenty being oxalate of lime;† and, less commonly still, there are phosphatic stones which are of constitutional origin also. Therefore, practically, to all intents and purposes the problem before us is how to prevent the formation of uric-acid calculus.

Let us examine the early history of a case of persisting uric-acid deposit? First of all, let me say, going back to the root of the matter, that it is generally more or less hereditary. As a single illustration of this, we have just seen a case of uric-acid calculus in the ward, and learned that his father had "gravel or stone for the last twenty years of his life." And my almost invariable experience is, that either calculus or gout, most commonly the latter, has been observed in the family of the patient who comes to me with one of these formations in his bladder. I believe it, then, to be very strongly hereditary. We speak of tubercular disease and of cancer as being transmitted by blood relations, especially the former; but I do not think even it is more certainly hereditary than the disposition to uric-acid deposits in one form or another. I make a point of asking the question of all patients who come to me with this complaint; and although I cannot at present furnish you with an exact numerical statement, I do know that in a very large majority, gravel or gout (for I wish to show you the identity as to the origin of the two complaints) has existed in the preceding generation; indeed, it is rare to find it otherwise. This hereditary tendency varies in force or strength in different families. You will find some persons with persisting uric-acid deposits at thirty years of age, others at forty, others at sixty. Of course, the earlier the time at which it appears, the stronger you will find the hereditary disposition, and the more obstinate, probably, will be its tendency to persist.

What, then, are the first signs of this condition in the patient? Usually, the first sign is that the urine deposits pinkish matter, on cooling, at the bottom of the vessel, or the secretion may be merely cloudy when cold. It is passed quite clear, becoming cloudy only when it acquires the ordinary surrounding temperature. This phenomenon, therefore, may appear more frequently in winter than in summer, because the external temperature is lower. It is simply a deposit of salts from a hot solution as the liquid grows cooler, all being easily dissolved by raising the temperature of the liquid to that at which it was originally passed. This is a condition of urine which very often and very unnecessarily excites much anxiety on the part of patients, and only the persistence of which can be looked upon as a sign of what is called "the uric-acid diathesis." Mind, I mean strictly persistence, or at all events frequency of occurrence; for you or I, with no hereditary predisposition, may take a little more beer than usual, or an extra glass of champagne, or a glass or two of unaccustomed port, and find next morning a considerable quantity of this pinkish deposit, the urine looking almost like pea-soup, but not so thick; and when the vessel is tilted on one side a tidal mark, so to speak, is seen, showing the height at which the liquid stood; all this, as I said before, being redissolved by heat. But if, without any errors of diet, of which any but a very small allowance of alcoholic drink is only one, a patient habitually passes this kind of urine—if in time there is a frequent deposit of uric acid, manifested by the presence of little crystals looking like particles of cayenne pepper at the bottom of the vessel—when this occurs rather early in life, say before forty, there is not much doubt that there is a strong tendency to produce uric acid, either inherited or acquired. For this tendency may to a certain extent be acquired, or a pre-existing habit may be intensified; but, as I have before said, it is almost always inherited.

We have followed the complaint up to the formation of cayenne-pepper crystals. I now show you a specimen of urine quite cloudy with lithates, although you must be familiar with it in the wards, and how on heating the liquid it again becomes clear, and that in a short time, while we are talking, it again becomes cloudy on cooling. Let me once more remind you that this may happen with the most healthy individual; and it is only the persistence of the symptom, without errors of diet, which should lead you to suspect a condition that requires treatment. Of the cayenne-pepper deposit I have some very good specimens here, which have been collected from patients who passed it habitually. These consist mainly of the transparent rhomboidal uric-acid crystals, which you know to be very beautiful objects under the microscope. They may be passed almost daily and habitually, or only every month or six weeks, in large quantities, when they usually produce some irritation. At such periods the patient may experience pains in the back and great discomfort, and be then said to have an attack of sand or gravel. These attacks may occur at varying intervals, and usually become more frequent or severe, unless the patient does something to prevent the formation. Afterwards he passes tiny calculi, popularly called "gravel," which seem to be rounded aggregations of the same crystals; and these little bodies tend in time to become larger, sometimes as large as small peas, or even beans; and they

* Printed from the Reporter's shorthand notes.

† The deposits of oxalate of lime and of uric acid so often replace each other that the consideration of the latter becomes practically generally sufficient for our purpose.

are still specimens of the same product—that is, of uric acid, associated more or less with some base, such as soda or ammonia.

Now let me recall for one moment what I said as to the relation of gout to this condition. I have frequently seen these two complaints alternating, comparing one generation with another: gout appearing in one, gravel in the second, and then gout in the third. But the same individual may also have alternating attacks of gout and gravel. I have seen a patient suffering for years from gout, which ceased for several months, when he developed for the first time a uric-acid stone. Lastly, the so-called "chalk-stone," which you have often seen infesting the knuckles and disfiguring the hands of elderly people in advanced stages of gout, are composed of the same material—that is, of uric acid, usually as urate of soda. The identity of the two things, then, is unquestionable; they constitute two different series of phenomena, but both spring from the same root.

Now what is to be done for these cases? What mode of treatment will help to prevent the arrival of at least the advanced condition—namely, that of calculus too large to be voided by the patient? Generally speaking, I think we see such patients in a tolerably early stage, although this is by no means always the case. Some are much alarmed at a very early period, when the urine is only occasionally thick with urates. You will of course disabuse such patients of their false impressions, because numbers of persons mistake such thick urine for highly organised matter. I have known persons to become almost hypochondriac through not knowing that such deposits are of little consequence at first, and can be easily treated. But what are we to do for those who habitually pass the cayenne-pepper crystals of uric acid or small calculi? You will first seek the patient's antecedents, and learn all that he has to tell you of his habits, his diet, and his family history; and your mode of treatment will be determined accordingly. First of all, let me speak of the general principles upon which the treatment should be conducted. A very simple rule—indeed, too simple, I think—is often adopted. When the urine has persistently and habitually thrown down acid deposits, the patient has generally been prescribed alkalies; if, on the contrary, he has had alkaline deposits, he has been treated with acids. That simple mode has too often formed the main portion of the treatment. In the former case he has soda or potash largely administered, or he will be told to drink so many glasses of Vichy water, which is mainly a strong solution of carbonate of soda, only a natural instead of an artificial one. Now it is quite true that with alkalies, provided enough be taken, these deposits will disappear: the uric acid will no longer be deposited; the urine will become less irritating; the annoying symptoms will be diminished or got rid of. And of course the patient is very much pleased with this new condition of clear urine and disappearance of all deposit. And you will say, "What more can be desired?" This: you have merely made his enemy disappear, but he is by no means rid of its presence; you have not checked the acid formation. The uric acid is there as ever; but the uric acid and the urates are soluble in alkali, and you have only made them invisible. You really have the same condition as that of the fabled ostrich, which is said to put its head in the bush when pursued by hunters, and, no longer seeing them, believes itself secure. Just such is the security of the patient with uric acid who trusts solely to alkalies or Vichy water. His surplus deposits have become imperceptible to *his* vision; nothing more. I do not say the alkalies have been absolutely unserviceable as regarding his constitutional state, but they will not improve it to any great extent; and when he leaves them off the acid shows itself again. Diuretics must be regarded in the same light. In those cases which are treated with diuretics, the secretion of water is no doubt increased *quoad* the amount of solids, and the solids are thus dissolved. In both instances what you have chiefly done has been, to stimulate the kidneys, already overworked, to do more. You have by no means cured the patient.

Now let us ask what is the real pathology of these cases, and then I think I shall be able to show you a more efficient remedy. The problem has presented itself to me with great force and frequency, because people, naturally fearing they may arrive at the stage of calculous formations, come for advice in the earliest stages, and with the strongest desire to avoid the advanced one of stone in the bladder. So far from sending them to Vichy or giving them alkalies, I believe they can be more effectually dealt with by a different mode of treatment. Let me premise, in broad and simple terms—as our time here, and, I may perhaps add, the extent of our knowledge, will not permit me to be more minute or exact in detail,—that the origin of what we call gouty symptoms, as well as of a superabundant uric-acid deposit in the urine, is due to defective assimilation on the part of organs associated with or forming the primæ viæ. I am quite aware that it is common in practice to speak somewhat knowingly of the liver, its actions and its states, although we have still a good deal to learn about all this. Some years ago we talked and acted as if we were thoroughly acquainted with the liver and its functions; but during the last fifteen or twenty years new light has been thrown upon the subject by Bernard, Pavy, and other workers in the same field, and we have learned that the more we inquired the less did we certainly know of its natural functions, still less of its action in disease. Thus, if one thing was more settled than another, at least since the time of Abernethy, it was that mercury had a specific influence on that organ; but now we find there are grounds for believing that the action supposed has no existence at all. There were other things, indeed, which were vaunted to take the place of it, but no one ever thought of disputing the fact that you could augment the bile secretion by administering mercury. I am not here to say whether that is so or not, but it seems to have been proved that there are substantial reasons for doubting if our ancient faith in that dogma be tenable. In speaking, then, of the "defective action of the liver," or of "torpor of the liver," I merely use provisional terms, which most understand as indicating more or less distinctly a certain set of symptoms. Let them be briefly described as mainly consisting of a constant, or almost constant, deficient excreting function by the bowels, sometimes, but by no means always, associated with impaired appetite and slow or uneasy digestion; these latter being often absent if the diet is carefully selected, or if the patient lives in the open air and takes much exercise. On the other hand, considerable and multiform symptoms of disturbed digestion may be frequently present. I cannot positively state whether those phenomena are really due to inactivity of the organ in question; practically, for us to-day, this does not signify much, but the current terms are still convenient formularies until others can be substituted for describing the condition in question.

Now, at the bottom of this tendency to uric-acid production there often lies what is thus understood as inactivity of the liver; and the true *rationale* of the undue formation of the urinary salts appears to be that, the liver or some allied organ not doing its duty as an excreting organ, the kidneys have more work thrown upon them. Thus the solid matters of the urine, or rather some of its ordinary constituents, are augmented,—not all of them, for urea is not necessarily increased, but uric acid is largely produced, and is eliminated not only in solution but in crystalline forms. Uric acid is very insoluble in water; and although the quantity thrown out may be quite soluble at the natural temperature of the urine (100° Fahr.), when this diminishes to 60°, 50°, or 40°, the acid is deposited; and when the quantity is still larger, even the ordinary amount of fluid associated with it at a temperature of 100° will not suffice to dissolve the whole, and solid uric acid is deposited in some part of the urinary passages. This deposit may take place in the kidneys themselves, giving rise, if not thrown off, to the formation of calculus, at first renal, but sooner or later mostly becoming vesical. Now, if all this be so, the formation of uric-acid gravel is not by any means to be regarded as necessarily disease of the kidney; on the contrary, it is the result of an active and capable organ vicariously relieving some other organ which is torpid. The true remedy therefore is, not to stimulate the kidneys, already overworked—not, to use a familiar simile, to spur that horse of the team which is already doing too much work, but you are to seek the cause in that other one of the team which is doing deficient work, and that is almost invariably the liver, in the sense already explained.

The treatment, then, which I advise you to pursue is to employ such agents as will stimulate the excretory action by the primæ viæ without depressing vital power. No doubt that a powerful agent for the purpose is mercury; and it is quite unquestionable that the relief of the sym-

ptoms above alluded to is to be obtained in a remarkable manner by occasional small doses of that drug. For our purpose, however, it is neither so successful in action, neither can it be considered so harmless, as another class of agents, which in these cases I believe to be in every way superior—I mean certain kinds of natural mineral waters. These I also regard as superior, in these maladies, to taraxacum, nitric acid, alkalies, and the other substitutes, as they have been termed, for mercurial remedies, in promoting the function of the liver. The mineral waters which I refer to belong to a group of springs all containing sulphate of soda, and some of them sulphate of magnesia also, in solution. In studying these waters, I wish you to look with me at the composition of them, and at the same time to dismiss from your minds entirely those views of medicinal doses which you have acquired in the dispensary, and which necessarily belong to it, since small quantities of drugs, as they exist in mineral waters, will act more freely than will those quantities combined after the ordinary pharmaceutical method. You ask me for a demonstration, and I am quite ready to give it you. At the same time, let me caution you against regarding the small doses of mineral waters as having any affinity, either in the matter of quantity or by manner of administration, with what is understood as homœopathic doses. Thus, for example, you know that you may give A an ounce of salts, or B half an ounce, and you purge them; but you may obtain the same effect with one-fifth of those quantities if you give it as prepared in nature's laboratory in the from of mineral water. It is a curious fact, which I give as an ultimate one, and without speculating here on the cause of the difference. As a proof of the superior force of the saline combinations found in natural springs, I may refer you to the following experiment. If you will reduce by careful evaporation, as I have done, such mineral waters to their pharmaceutical condition of crystallised salts, you will find them possessing little if any more power than similar salts as obtained by the ordinary processes, and met with in every chemist's shop. They no longer do their work on the same terms as when administered in the original water before they were separated by evaporation. You will therefore readily understand how essential to our end it is to employ the natural mineral waters; since what are called "artificial waters," however admirably prepared, are simply pharmaceutical products, and are destitute of the very quality which distinguishes the remedies they are designed to imitate.

Here is a table of the waters which I refer to, with a comparative synopsis of their distinguishing saline contents, representing the number of grains (without chloride of sodium and other less active agents) in an English pint. Below these I add two well-known alkaline waters.

—	Sulphate of Soda.	Sulphate of Magnesia.	Carbonate of Soda.	—
Saline:				
Püllna	154 grs.	116 grs.	—	
Friedrichshalle ...	58 „	49 „	—	
Marienbad (Kreuz)	48 „	—	9 grs.	Little iron.
Carlsbad (Sprudel)	25 „	—	13 „	
Franzensbad	30 „	—	6 „	Little iron.
Alkaline:				
Vichy (Celestins) about	3 „	—	47 „	Little iron.
Vals (Magdeleine) about	—	—	65 „	Little iron.

The most powerful of this group is that of Püllna, which contains 154 grains, or nearly 2½ drachms, of sulphate of soda to the English pint, and nearly 2 drachms, of sulphate of magnesia. Those quantities would give a tolerably efficient purge to anybody. But you must not give a pint of Püllna; 5 ounces would be a full dose. I do not like Püllna generally for our purpose, because it purges too freely, often gripes, and is very nauseous. Half a drachm of sulphate of soda and half a drachm of sulphate of magnesia in this form is too much for many people. I therefore recommend Friedrichshalle, which contains not a drachm of sulphate of soda in a pint, and little more than three-quarters of a drachm of sulphate of magnesia. Nevertheless, you would not think of giving a pint; eight or nine ounces make an efficient purge; for many persons six or seven suffice. I think I may say that seven ounces is an ordinary average dose. If you take seven ounces of Friedrichshalle water an hour before breakfast, and soon after a cup of hot tea or coffee, you will have a full, free action of the bowels; perhaps two. That, you see, would be about twenty-five grains of sulphate of soda and twenty grains of sulphate of magnesia, which, taken in any combination you like out of a druggist's drawer, would have no appreciable action; you might be a little uncomfortable perhaps, but there would be no action of the bowels. To repeat what I have said: if you evaporate a quantity of Friedrichshalle water in a warm water bath, and obtain as perfect a product as a chemist can produce, and administer four times the amount of salt in that form which exists in a dose of the natural water, you would still not have such efficient or such certain results as from the small quantity (in the natural water) named above. So that there is something, which I do not pretend to explain, and certainly shall not speculate about here, which distinguishes the action of mineral waters from the action of salts which are produced pharmaceutically. The next water on my list is Marienbad, which contains no sulphate of magnesia, forty-eight grains of sulphate of soda in the pint, with nine grains of carbonate of soda, and a small quantity of iron. About half a pint produces for most persons an easy motion. If this water is exposed to the air for a day or two, there will be an obvious brown deposit of the iron, and it may be regarded as slightly ferruginous, though that is a secondary character. The next is Carlsbad with its many springs, all of which contain about twenty grains of sulphate of soda and thirteen of carbonate of soda in the pint. Then we come to Franzensbad, which contains thirty grains of sulphate of soda, six of carbonate, and a little iron, which Carlsbad does not. That closes this group of springs.

But now I shall just point out the distinctive characters of the alkaline waters which are so popular in this country. First, Vichy, which contains only three grains of sulphate of soda, but nearly fifty grains of carbonate of soda, in the pint—a powerful solution. Then we come to Vals, which is also from the volcanic district of France, some of the springs of which contain upwards of sixty grains of carbonate of soda, and nothing else worth mentioning. These two waters are extremely famous, and are much resorted to against gout and gravel. Under their use the uric acid deposits disappear—that is, they are dissolved by the alkali. Inasmuch also as this appears to have some beneficial action on the liver, a certain degree of permanent benefit is perhaps also attained. Thus such patients are often better for a time after a visit to Vichy; but, as a rule, are not permanently benefited. I am satisfied, after observation on the spot, and on the effect of the waters here, that they only temporarily mitigate the complaint, and do not cure it. Now, the principle upon which the waters of Friedrichshalle and Carlsbad are beneficial is, that they produce activity in all the digestive functions, and thus waste matters which have been hitherto thrown out as uric acid by the kidney are eliminated in some other form. And thus it is that, if it be necessary to send these patients abroad, I prefer very much Carlsbad to Vichy, provided always that the subject of a Carlsbad course must not have become too weak, as for a time it makes a demand on the strength not well supported by a feeble person. Generally, however, this is not at all the condition of those who are passing uric-acid gravel. Happily, also, for most people our purpose can be attained as well at home. I believe that a short course of Friedrichshalle first, followed by Carlsbad, or by a combination of the two, produces the best results in these cases. This method has, at all events, been more successful with me than any other. Such a course should be continued, according to circumstances, for six or eight weeks.

A few words upon the way in which you should give them. If you have a patient coming to you whose digestion is not good, complaining of foul tongue, with deranged digestion and loss of appetite, it is sometimes, not always,

desirable to give first a single dose, no more, say three or four grains, of blue pill at night, and the next morning eight or ten ounces of Friedrichshalle water, so as to ensure good action at first. Then commence with Friedrichshalle combined with hot water, one dose every morning an hour before breakfast, diminishing a little the quantity every day or every few days. One of the characteristics of this water is that the longer it is taken the smaller is the quantity necessary to effect the purpose. If, for example, seven or eight ounces taken in the morning, say with five ounces of hot water, produce one active movement of the bowels immediately after breakfast, the next morning six or seven ounces will do the same, and the morning after probably five or six ounces; and it is very likely that at the end of three weeks the patient will from four ounces experience the same effect produced originally by seven or eight. But after you have given it thus for one, two, or three weeks, according to the nature of the case and the results, you should combine it with Carlsbad, say three or four ounces of the former and five or six of the latter, with three or four of hot water every morning. When Friedrichshalle is given alone, and also when it is mixed with Carlsbad, 20 or 30 per cent. of hot water should be added, that it may resemble somewhat the original condition at the spring. Friedrichshalle is naturally hot, and is evaporated on the spot to a small extent, being regulated and rendered uniform by stopping the process when the water reaches a certain specific gravity. Carlsbad, which at the spring is too hot to drink until cooled, should, when taken alone and unmixed, be raised in temperature to 90° or 100°, by placing the tumbler containing it in a vessel of hot water for a few minutes. After giving this combination of the two waters for two or three weeks, six, seven, or eight ounces of Carlsbad may be taken alone for another fortnight perhaps. The quantities given are considerably less than those administered at the spa itself, where a patient's stay is necessarily limited as to time. I am quite satisfied that the smaller quantity here recommended, and employed for six to nine weeks, instead of the usual three weeks of a foreign course, is better for the majority of the patients we have to deal with. The same quantity of water given there in twenty-one days, producing often notable loss of weight and power, will, if given here in fifty or sixty days, attain the object as certainly and more safely. I by no means dispute that there are other cases which may be benefited by the more heroic plan adopted on the spot. I have largely and systematically employed these agents now for seven or eight years, modifying the quantity and the mode as experience has indicated, and the course thus briefly described is the result of it. The course may be repeated with advantage, if necessary, for most patients after an interval of three or four months. Meantime, as an occasional aperient and a corrector of digestion for these patients, I know nothing at all equal to Friedrichshalle. It leaves the patient as a rule less constipated after discontinuing it than he was before; and, as already said, may be taken habitually without lowering the system. I have known patients continuing its daily use for three or four years, but I do not advise this course unless in exceptional cases. Nevertheless I know a gentleman, nearly eighty years old, who has taken it for five years regularly, a wineglass every morning, and the effect has been for him most admirable. Suffering much formerly from an obstinate constipation, he enjoys perfect regularity and excellent health. Let me say here that what is called "Carlsbad salt" is often used for the same purpose, and is taken also in the belief that it represents Carlsbad water. This it does not do, consisting almost entirely of sulphate of soda taken from the water, and has the same and no more virtue than that salt when obtained from any other source. No doubt that the sulphate of soda, known also as "Glauber's salt," is one of the most admirable medicines we possess, and deserves to be more popular than it is. I constantly order it, with or without a small addition of sulphate of magnesia, for the out-patients as the best substitute within my reach for the mineral waters in question.

In the few minutes which remain I will advert briefly to the subject of diet, certain restrictions in which are extremely important. It used to be said that when uric acid is largely deposited the nitrogenous elements of the food should be considerably diminished. I do not find in practice that a strict application of this rule is advantageous. On the contrary, the diminution of the deposit is more certainly attained by a course which is almost the opposite of that. There are three classes of aliments which must be permitted to the patient very sparingly, in order to attain the end in view—viz., alcohol, saccharine, and fatty matters. First, alcohol: any fermented liquor permitted as an article of diet should be selected in its more diluted and in its most pure form. Believing that form in which it is found existing in natural wines to be usually the best, I would advise a light sound Bordeaux or a Rhine wine of similar quality, the former perhaps agreeing better with most persons here. You will forbid champagne, as for the most part imperfectly constituted, and always bad if containing much liqueur. The stronger wines, as sherry and port, are mostly unsuitable, and strong beer is to be absolutely forbidden. Solutions of pure spirit and water are exceptionally desirable for some few persons with weak digestion. Secondly, sugar in all its forms: at every meal and wherever met with, forbid it altogether. Thirdly, let fatty matters, butter, cream, and the fat of meat, whether simply cooked or in combination to form pastry, be taken very sparingly. I cannot enlarge on the theory on which this advice is given. Suffice it to say that abstinence from the substances named probably lightens considerably the work of the liver, and so lessens the vicarious labour of the kidneys in accordance with the views already propounded. Let me just advert, moreover, to the dietetic system at Carlsbad. In recognition of some such principle there, no doubt, the use of sugar and of butter is absolutely forbidden during a Carlsbad course; and were you patients there, your purveyor would not supply you with the forbidden food, however much you might demand it. I can only say, as the result of observation, that this system, much more than the elimination of meat from the dietary, will reduce the uric-acid deposit. If you will cut off a portion of alcoholic stimulant when necessary, and it often is so, will forbid everything that contains sugar, and diminish considerably all fatty matter—giving nitrogenous food, in fact, and eliminating hydrocarbons—you will generally accomplish more than by the contrary method. In addition to all this, you will of course see that the patient takes daily a fair amount of exercise in the open air, and that he protects his skin and encourages the performance of its functions by habitual ablutions and sufficient clothing. These points I can only name; but they are essential concomitants to the rest.

Well, then, it is this system of diet and regimen, and the occasional systematic employment of the mineral waters named, which mainly constitute the treatment I strongly advise for the purpose of checking calculous disease in its early stages, and so to prevent the formation of stone in the bladder in that considerable majority of cases which are due to uric-acid formation and its consequences.

CONTRIBUTIONS ON THE PHYSIOLOGY & THERAPEUTICS OF FOOD.

By F. W. PAVY, M.D., F.R.S.,
LECTURER ON PHYSIOLOGY AND PHYSICIAN AT GUY'S HOSPITAL.

No. IV.

INTESTINAL DIGESTION.

THE nitrogenous matter which has escaped from the stomach undissolved undergoes a further digestion in the intestine. This may be shown by direct experimental observation. And it is not by a continued action of the gastric juice which passes on with the food in its course, but by an action exerted by the secretions poured into the intestine itself. It has been stated that the presence of an acid is an indispensable factor in gastric digestion. The chyme, as it leaves the stomach, is strongly acid. It contains not only nitrogenous matter which has not yet undergone solution, but also gastric juice whose solvent power (it may be inferred) has not yet become exhausted. So far, there are present the conditions requisite for a continuance of the process carried on in the stomach. It happens, however, that on reaching the small intestine the chyme encounters

alkaline secretions. The pancreatic juice is to a marked extent alkaline, and so also is the intestinal juice. The bile likewise contains a quantity of alkali in feeble combination, and easily appropriated by the gastric juice. Thus it happens that the chyme becomes more or less neutralised as the small intestine is being traversed. As the result of observation, for instance, I have noticed that by the time the lower part of the ileum is reached, the intestinal contents may be found to present a neutral or even an alkaline reaction.

Through contact, then, with the secretions poured into the intestine, the energy of the unexhausted gastric juice contained in the chyme is destroyed, and whatever solution of nitrogenous food now occurs must be due to another agency.

Let us, therefore, inquire into the effect which the various secretions, as they become incorporated with the chyme, are capable of producing.

First, as regards the intestinal juice. This fluid, it is manifest, has some solvent influence on nitrogenous matter. Bidder and Schmidt ascertained by experiment that meat and coagulated albumen, placed in a muslin bag and introduced into the empty small intestine in which the bile and pancreatic juice were prevented by a ligature from descending, underwent, in from four to six hours, a considerable amount of digestion. In an experiment performed by myself, in which the hind legs of a frog that had been separated from the body were introduced into the empty small intestine and secured by a ligature from the descent of secretions from above, I found, after an interval of six hours, the legs partially digested; a portion of the skin, for example, having been dissolved away, the muscles underneath it separated, and the bones to some extent exposed.

Next, let us take the pancreatic juice. Besides its other offices in the animal economy, this liquid acts upon and dissolves nitrogenous matters, as appears from the following considerations:—

In 1836, Purkinje and Pappenheim held that the pancreas contained a principle capable of exerting digestive action upon the nitrogenised elements of food. This statement attracted little attention, and soon sank, indeed, into oblivion. More recently, M. Lucien Corvisart, of Paris, having reopened the subject, proved by a series of experiments that the pancreas, as one of its functions, supplements the action of the stomach, and, after a copious meal, contributes to digest those nitrogenous matters which have escaped the stomachic digestion. As far as the result is concerned, the nature of the two digestions is alike, each leading to the production of albuminose. While acidity, however, is a necessary condition to digestion in the case of the gastric juice, the pancreatic secretion, he affirms, possesses the power of acting equally well, whatever the reaction that may prevail, whether acid, neutral, or alkaline.

In support of his doctrine Corvisart adduced three sets of experiments:—

First, he said, let the pancreas of an animal be taken when its active principle is at its maximum of quantity and quality—that is, from the fourth to the seventh hour after digestion has set in. Let it then be finely cut up, and infused for an hour in twice its volume of water at a temperature of 20° cent. (68° Fahr.) If the infusion be at once experimented with, it will be found to possess a power of dissolving the nitrogenised principles and converting them into albuminose; and this with no evidence of putrefaction being perceptible if the experiment be stopped at the end of four or five hours, in which time, under a temperature of about 100° Fahr., the pancreatic principle will have effected all that it is capable of.

Secondly, the pancreatic juice obtained during life from the duct of the gland is likewise found to act as a powerful solvent on the nitrogenised alimentary principles if the experiment be conducted *secundum artem*; that is to say, the secretion must be collected for experiment from the fourth to the seventh hour after the ingestion of food, when it is charged with the pancreatic principle to its maximum degree; and also it must be experimented with immediately after collection. According to Corvisart, the pancreatic juice dissolves fibrine more quickly and more largely than albumen. The heat being maintained between 42° and 45° cent. (108° and 113° Fahr.), a specimen of pancreatic juice of ordinary energy dissolves, he says, if the mixture be agitated every quarter of an hour, all that it is capable of dissolving—of fibrine in two or three hours at the most, of solid albumen in four or five hours; the experiment up to this time being attended with no evidence of ordinary decomposition, while at a subsequent period ordinary decomposition is found to set in.

Thirdly, nitrogenised substances introduced into the duodenum when pancreatic juice is flowing into it, are found to be dissolved, notwithstanding that the gastric juice and bile are precluded from entering by ligature of the pylorus and bile-ducts.

This last experiment must not be taken as absolutely conclusive with regard to the individual action of the pancreatic juice. The bile and the gastric juice may, it is true, have been excluded, but it is impossible to exclude the co-operation of the secretions of Brunner's and the other duodenal glands.

My own experiments with the pancreatic juice at first inclined me to think that the effects producible on nitrogenous matter through the agency of the pancreas were rather like those which result from putrefaction than from true digestion. On re-performing the experiments, however, I obtained results which certainly appeared to indicate that some digestive action had been at work. For example, upon operating with the pancreatic infusion, taken according to the instructions of Corvisart, I have found that frogs' hind legs, which, according to my experience, constitute one of the most, if not the most, sensitive and perspicuous tests of digestive action, have, upon some occasions, been softened, so that the flesh has broken down under exceedingly slight pressure, without evidence of ordinary putrefaction being apparent. The effect, however, was not to be compared with what is observed with artificial gastric juice, and ordinary decomposition is very prone to occur, which is not the case in experiments with gastric juice.

The *bile* forms another secretion which becomes incorporated with the alimentary matter after its exit from the stomach. There is nothing, however, to show that this fluid possesses any solvent power over the nitrogenised principles of food.

As regards the intestinal digestion of food, however, the point of interest to us is not whether this or that secretion poured into the intestine will dissolve nitrogenous matter, but whether nitrogenous matter really undergoes digestion in the intestine.

I have remarked upon the action of the secretions taken individually; but in relation to food the interesting point to us, as I have mentioned, is what occurs within the intestine when all the secretions are allowed to enter. Experiment shows that there is a very powerful solvent action exerted, and, as I can state from personal investigation, a few hours suffice for nitrogenous matter, introduced directly into the upper part of the small intestine, to undergo marked digestion. With reference, therefore, to the digestion of nitrogenous matter, the intestine may undoubtedly be regarded as performing a part supplementary to that of the stomach. Besides its other functions it serves to complete the digestion of whatever nitrogenous alimentary matter may have escaped the digestive action of the stomach, and it may be remarked that the same result—namely, the production of albuminose or peptone—occurs as when the solution has been effected in the stomach.

We have brought the subject up to this point—namely, the conversion of nitrogenous alimentary matter into albuminose; a principle which, from its diffusible nature, can be readily absorbed, and so reach the circulation.

This process is necessary, not only as preparatory to absorption, but also in order to fit the nitrogenous aliment for subsequent application in the system. It cannot absolutely be affirmed that its absorption, without previous conversion into albuminose, would not to any extent occur; but this much is certain, that the amount so absorbed would be very scanty. Let it, however, be artificially introduced into the circulation and evidence can be given that it is not applied in the normal manner.

Bernard first demonstrated that the albumen of egg, reaching the circulation without having previously undergone digestion, quickly passes from the system into the urine. If introduced into one of the bloodvessels by injection, or even absorbed from injection into the subcutaneous tissue, it rapidly betrays its presence in the urine. This, indeed, I can attest from my own experience. Both after injection into the vein and into the subcutaneous

tissue, the albumen of egg, as I have often seen, is soon recognisable in the urine.

It has also been observed that a meal consisting largely of eggs, particularly after prolonged fasting, has been followed by the appearance of albumen in the urine. Here, apparently, it has happened that some albumen has reached the circulation without having undergone the usual conversion, and, as when experimentally injected, been thence discharged with the urine. Hence it may be concluded, not only that egg-albumen and blood-albumen differ strikingly from each other in a physiological point of view, but that egg-albumen, as such, is not fitted for entering into the circulation.

The conversion of albumen, therefore, into albuminose not only bears on the facility of absorption, but on the adaptability for subsequent application in the system. The change is required not only with a view to adaptability for absorption, but to subsequent fitness for utilisation in the system.

Caseine and gelatine I have found* behave in the same manner as albumen. When directly introduced into the circulation, they pass off from the system with the urine. The injection of three ounces of milk into a vein was followed, in an experiment which I some time back performed, by the appearance of caseine in the urine. The injection of one hundred grains of isinglass, dissolved in two and a half ounces of water, also so charged the urine with gelatine as to give rise to the formation of a firm, solid jelly on cooling.

Thrown off as they thus are from the system, albumen, caseine, and gelatine are evidently not adapted for direct introduction into the circulation. Fibrine, on account of its solidity, cannot be similarly experimented with. Digestion, however, in its case is an indispensable condition to its introduction into the circulation. In respect of all these principles, indeed, it may be said that metamorphosis in the digestive system is needed as a preliminary step to their utilisation in the system, or their subservience to the economy of life.

I have thus followed the nitrogenous alimentary principles to the stage of albuminose. The precise nature of the next step is not yet known. There can be little or no doubt as to the progress from albuminose to the albumen of the blood; but as to what next ensues we have no data to show. With the ultimate products which are formed we are familiar; but the steps of metamorphosis are as yet beyond our knowledge. The chain we have hitherto followed now wants one or more links which as yet have baffled experimentalists to bring into view. As regards the seat of metamorphosis we have also nothing of a precise nature to deal with, but we may nevertheless hazard the surmise that the liver is the viscus in which albuminose mainly if not entirely, like other nutritive matters absorbed from the alimentary canal, undergoes metamorphosis.

The various nitrogenous principles of the body must be ultimately produced from albuminose; but whether by direct transformation into them, or by passing through the stage of albumen, we have not the means of deciding. That albumen is susceptible of metamorphosis, however, into the other principles, we know from its forming in the egg the pabulum whence the various nitrogenous principles of the young bird are derived.

Instead of wandering further into the field of conjecture on the subject of metamorphosis, let us turn our attention to the purposes fulfilled by the nitrogenous principles as alimentary matter.

* Gulstonian Lectures (1862) on Assimilation and the Influence of Defects on the Urine (THE LANCET, vol. i., p. 874, 1863).

DR. ERMERINS.—Dr. Daremberg has published, in *L'Union Méd.*, a sketch of the labours of this learned professor, who died at Groningen (Holland), where he had held a distinguished position. The deceased was especially noted for his extensive investigations regarding ancient medical authors, and has left a series of important works and essays on Greek and Latin medical literature. The study of the ancients is so seldom earnestly pursued in our times that we gladly allude to the erudite Ermerins, who was highly appreciated by his countrymen, not only for his learning, but also for a blameless and very useful career.

ON AN

IMPROVED FORM OF DEMONSTRATING OPHTHALMOSCOPE.

BY ROBERT BRUDENELL CARTER, F.R.C.S.,

OPHTHALMIC SURGEON TO ST. GEORGE'S HOSPITAL, SURGEON TO THE ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.

THE elements which enter into the formation of the ophthalmoscope are so well known, their action is so well understood, and so many combinations of them have been devised by various persons, that it would be extremely hazardous to claim novelty for the arrangement which I am about to describe, and which differs from others only in points of detail, and not at all in principle. I have, however, ventured to call it an improved arrangement, because, whether as regards the simplicity of its construction and adjustment, or the magnitude, brilliancy, and clearness of the image which it affords, it is not equalled by any other with which I am acquainted.

The skilled ophthalmoscopic observer, when he wishes to scrutinise carefully the optic disc or other object in the fundus oculi, uses the direct method of examination. In this the mirror is brought close to the eye of the patient, and the fundus is seen magnified by its own crystalline lens. For many purposes this method is the best that can be adopted; for some purposes it is indispensable. But there are various difficulties in the way of its being generally employed; and the indirect method, or the examination of an aërial inverted image formed by placing a convex lens before the eye, must always be that which will find most favour with practitioners.

The chief disadvantage of the indirect method, as usually pursued, is that it affords only an inconsiderable degree of enlargement; while, at the same time, the highest degree of enlargement easily obtainable is only gained at a considerable sacrifice of illumination.

The reason of this is, that the lamp is placed at the side of the patient's head, and that the convex lens, which should be held at rather more than its own focal length from the eye, forms, at its focal distance on the side of the spectator, an image which increases as the focal length increases, and so becomes larger as the magnifying power of the lens is less. Let the capital letters below represent the

O M I L E

relative position of things when the lens used is of two-inch focal length. E represents the eye of the patient, L the lens, I the image, and O M the eye of the observer, with the mirror in close proximity to it. In this case it is supposed that the distances L E and L I are each two inches, and the distance from I to O about fifteen inches, which is generally as little as will be found compatible with clear vision. The resulting image is well lighted, but small, and fine details cannot be seen with the degree of distinctness that is often required. If now we take a four-inch lens, we obtain an arrangement in which the distances L E and L I become each four inches; and hence O is removed four inches further from E, or to twenty-three inches instead of nineteen. The image is larger, but the illumination seriously diminished. In the first place, as the quantity of light radiating from any source to fall on a given area diminishes as the square of the distance, the absolute amount falling upon the mirror will be lessened by very nearly one-third, and hence less light will be thrown into, and returned from, the examined eye. This lesser quantity of light will in its turn have to form an image of about four times the superficial extent of that first considered, and the large image will therefore be so dimly lighted that it will often be impossible to make out its details with any certainty. Moreover, an object lens of even four inches focal length requires to be held so far from the patient that the observer cannot steady his hand by resting a finger upon the forehead or cheek; and anything beyond four inches soon requires a distance between the observer and the object lens that is beyond the comfortable, or even possible, range of the arm. Practically, a three-inch lens is the lowest power available for hand instruments.

Attempts have been made to overcome these difficulties

in various ways. Ulrich, Hasner, Liebreich, Follin, Galezowski, and others have mounted the mirror and the object-glass at the opposite extremities of a tube, blackened inside, so as to cut off external light, and thus to increase the apparent brightness of the image. In most of these instruments, and by many observers using the hand-mirror, a second convex lens has been placed behind the mirror, and used to magnify the image. I myself constantly employ a lens of 7" behind my hand mirror, in conjunction with an object-glass of 3".

The objection to all kinds of tube instruments is that they render impossible slight independent movements of the lens, by which it is easy to correct, or rather to compensate for, slight movements of the eye. Even a moderately steady, or what may be called a good patient, does not keep the eye perfectly still. Its slight lateral movements constantly displace the optic disc or other point of the image; and the skilled observer follows them, and keeps his object in view, by similar slight movements of his lens hand, movements of which he is scarcely conscious, and in the performance of which he is guided solely by sight. The inverted image appears to move in the same direction with the lens; and, therefore, if the optic disc strays away to the right of the observer, a little movement of the lens to the left will recall it to a central position in the field, and so on with other changes. Moreover, lateral movements of the lens are important aids to diagnosis in cases of depression or projection of any part of the fundus, as in excavation of the nerve-disc, or in the early stages of morbid growths; because the image of a part that is in a plane relatively anterior moves further with the lens than the image of a part relatively posterior to the former. As the lens is moved from side to side, the apex of a projection, or the margin of a cupped disc, appears to move also in front of the general level of the retina or of the floor of the excavation. In tube instruments, of course, the lens can only be moved laterally by moving the mirror also, and thus by changing the incidence of the light and otherwise disturbing the observation. Where any part of the apparatus touches the patient, the difficulty is much increased; for the instrument cannot be moved, as a whole, to follow the eye, and is liable to constant disturbance from slight movements of the head. The latter are of frequent occurrence during ophthalmoscopic observations; because patients, when told to look to the right or left, almost always turn the face, and not the eyes only, in the direction indicated to them.

The use of a magnifying lens behind the mirror soon reaches its limit, and is attended with the disadvantage of narrowing the field of view in a degree corresponding with the enlargement. If in this way we magnify the optic disc, we see nothing but the disc, and cannot at the same time obtain a general view of the fundus.

The first successful attempt to overcome these difficulties was made by Dr. Burke, of Paris, whose "reflecting ophthalmoscope" was perfected shortly before the commencement of the Franco-German war. Dr. Burke was good enough to bring me one of his instruments during a hasty visit to England; but at first I failed in using it satisfactorily. It was only when he came again to this country, after the peace, that I learned from him how to overcome my difficulties; and I then exhibited his ophthalmoscope to several medical assemblages. For size of image and brilliancy of illumination it stood quite alone; but it was attended by several minor inconveniences which limited its practical application.

In principle, Dr. Burke's instrument is not entirely original, but is a modification of what had been suggested by Klaunig. It consists of two concave mirrors, each four inches in diameter, placed facing each other, about a yard apart, and about six inches from the edge of a table. One of these mirrors has a central perforation, and a focal length of thirty-three centimetres. The other has no perforation, and a focal length of nineteen centimetres. A lamp is placed on the table, a little to one side of the line between the mirrors, and at the focal distance of the first or perforated one, which is then so turned as to reflect the lamplight upon the second mirror, from which direct rays are cut off by the interposition of a screen. The patient sits against the edge of the table, looking at the second mirror, and with his face just beyond its focal distance. This mirror is then turned so as to throw the light it receives from its fellow into the eye to be examined, and it forms the rays returned to it into a large and brilliant inverted image—large, on account of the long focal distance of the inverting mirror; brilliant, on account of the flood of light furnished by the illuminating mirror. This inverted image is seen through the perforation of the illuminating mirror. It is necessary to a good result that the two mirrors, the eye observed, and the lamp, should all be precisely on a level, otherwise the image will be obscured by glare, or direct reflections of the flame; and the inverting mirror must not be placed too obliquely, otherwise the pupillary aperture will be distorted. The precise distance between the inverting mirror and the patient requires to be very nicely adjusted; and the observer, who is seated with the patient's back turned to him, cannot make these adjustments himself without rising and going to the mirror and then going back to observe the effect. In the meantime, a very slight movement may take the eye out of view altogether, and practically the instrument is of little use unless the observer has the aid of a skilled assistant.

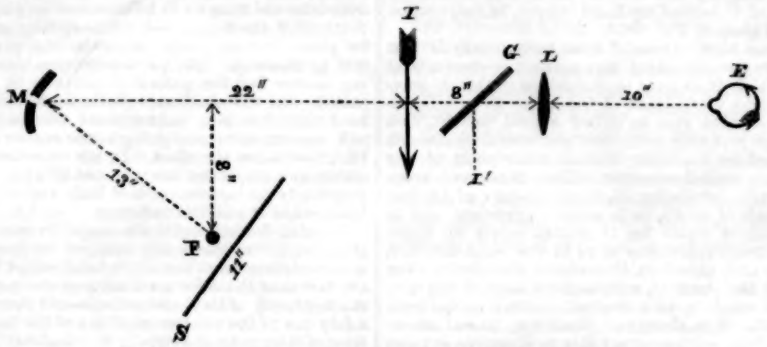
In using Burke's ophthalmoscope for purposes of demonstration, I was constantly annoyed by these defects; and, in considering how they might be obviated, I was struck by the fact that the chief peculiarity of the instrument was in the brilliancy of its illumination,—and that this, which was solely due to the relative positions of the lamp and the perforated mirror, might equally be obtained if the inverting mirror were removed and replaced by the convex lens of the ordinary ophthalmoscope. The result has surpassed my expectations, and has not only afforded an image fully equal to that of Dr. Burke's ophthalmoscope under the best conditions, but also an instrument requiring no assistant, and perfectly simple and easy of management.

The apparatus consists of three pieces—a mirror, a lens, and a chin-rest,—each of which is supported on a vertical tube, which slides up and down within an outer tube, and can be fixed by a screw-collar at any desired height. The outer tube is screwed into a circular foot of sufficient weight. The mirror is hung in a gimbal by horizontal screws, and can be turned on its vertical axis by rotating its stand. It is the illuminating mirror of Burke's instrument, four inches in diameter, thirteen inches in focal length, centrally perforated, and furnished at the back with a lens clip, to hold a concave lens if used by a short-sighted observer. The mirror is of silvered glass; and the old tin and mercury silvering affords most light. The amalgam only is removed at the centre, leaving quite a small opening for the passage of light; but the opening in the metal back is somewhat larger, to get its margins out of the way of oblique rays. The lens is biconvex, four inches in diameter, eight inches in focal length, and is fixed in a simple collar, as it requires no movement on a horizontal axis. It can be raised or depressed or turned on its vertical axis by means of the inner sliding-tube of its stand. To one side of the base of the latter is attached a stout horizontal brass rod, fifteen inches long, with a vertical wooden handle at its free extremity. The chin-rest is simply a plate of metal, concave from side to side, rather more than two inches long and one broad, rounded at the corners, and covered with cloth or velvet.

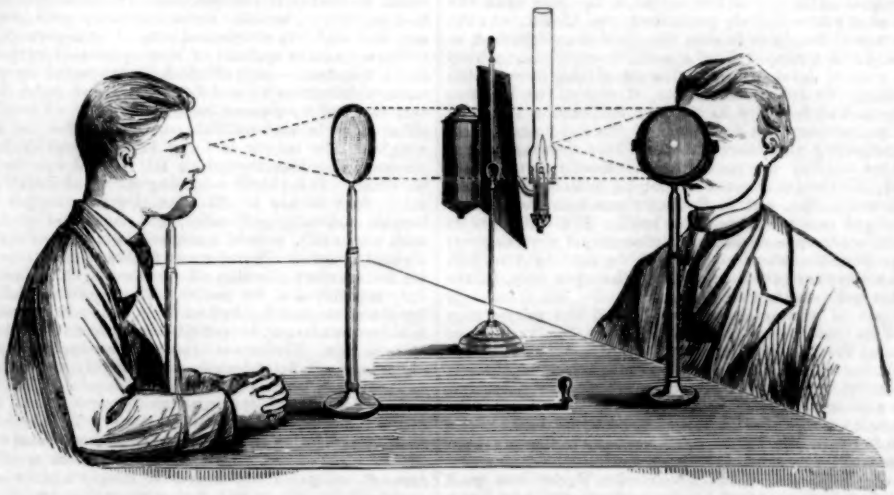
The arrangement of the apparatus is shown, both in ground-plan and in perspective, in the accompanying diagram and sketch, the former of which gives also the relative distances between the patient, the observer, and the several parts of the apparatus. It will be seen that the patient and the observer are placed exactly facing each other, on opposite sides of a table, which (as the distance from the mirror to the patient's cornea should be forty inches) cannot be less than four, nor conveniently more than five feet wide. The lamp is thirteen inches from the mirror, and eight inches to either side (preferably to the right of the observer) of the base line. The lens is thirty inches from the observer, and ten inches from the patient; and its horizontal handle stretches directly towards the former.

The first thing to be done is to seat the patient comfortably, with his chin well on the rest, and this fixed at such a height as to render the general plane of the face vertical. The mirror is then set with its central opening on a level with the patient's eye, and the lens at the same height as the mirror; and these two, and the lamp and screen, are placed in the positions shown in the diagram. The mirror is turned on its vertical axis until the rays reflected from

it fall full on the lens, which should then throw a circular patch of brilliant light, about the size of a shilling, full upon the eye of the patient. If the patch be much larger than this, the lens is too distant; if it lose its circularity, and approach the shape of an inverted image of the flame, the lens is too near. Until perfect certainty of adjustment has been obtained, it is well to protect the eye by a screen until the right distance is attained. If the light be of the proper size and shape, but not central on the eye, the lens must be raised or lowered, or moved laterally, until the proper position is obtained. The observer then takes his seat behind the mirror, and looks through the perforation at the image. By means of the horizontal handle, which comes well within his reach, he impresses upon the lens any to and fro or lateral movements he may desire, and is able to follow those of the patient's eye. The patient



In the above diagram,—E, represents the eye of the patient; L, the lens; I, the image; M, the mirror; F, the flame; S, the screen; and C, the slip of plate-glass to produce a second image at I′.



should be instructed, before the light is thrown on, to look a little across the median line with the eye examined, so as to bring the optic disc into the centre of the field of view.

The best light for the purpose is that afforded by the common German (or so-called Queen's) reading-lamp, not only on account of the ease with which it may be handled, and the burner set at any required height, but also on account of the perfect steadiness of the flame. The flame of even the best gas burners is apt to flicker; and this flickering, which is much intensified in the concentrated beam of the lens, produces disturbance by distorting the outline of the pupil, and by causing broken images of the iris to be projected into the field of view, and partially to conceal the image of the fundus.

The German lamp, moreover, conveniently carries a simple screen, to shield the patient from direct light, in the socket intended to support the ring which sustains the shade, this ring being of course removed. My screen is a piece of stout white cardboard, eleven inches broad and nine deep, blackened on the side that is turned away from the light. A strip half an inch wide is cut out of its lower half, to allow it to fall over the tube that carries oil from the reservoir; and a sort of central leg enters the socket already mentioned. The whole arrangement is shown in the sketch, and the degree of inclination of the screen in the diagram. With any other lamp, a detached screen may be employed.

If the plane of the lens be placed, as shown in the diagram, at right angles to the line between patient and observer, the view will be more or less obscured by two reflected images of the mirror. To obviate this, the *inner* tube of the lens-holder must be turned a little on its axis, so as to render the lens oblique, by which the two images will be laterally displaced. The corresponding manœuvre is perfectly familiar to all who use the hand instrument; but it is necessary to turn the *inner* tube only, so as not to alter the position of the horizontal handle.

The line C in the diagram indicates the position of a valuable accessory in using the instrument for demonstrating purposes. A slip of thin plate glass, placed thus obliquely in the track of the rays, will reflect some of them in the direction of I′, and will form there a faint reduplication or "ghost" of the image, which will be sufficiently visible, in the shadow of the screen, to an observer properly placed, who may thus control the lens by being himself able to see dimly the appearances that are seen brilliantly by

anyone looking through the mirror opening. The slip of glass may be held in the hand, or placed in a clip supported by a horizontal arm projecting from the lens-holder. I believe it will be possible to intensify this ghost, and even to render it visible to many spectators at once; but this part of the question must be reserved for a future communication.

The ophthalmoscope is now coming into constantly increasing prominence as an instrument of diagnosis in many maladies wholly unconnected with the eye, or, at least, having only a secondary influence upon it; and a good instrument is nearly as valuable to the general physician as to the ophthalmic specialist. I bring this one before the profession with great confidence, feeling that, for the consulting-room at least, it will remove many of the difficulties that have hitherto impeded the general employment of ophthalmoscopic research. Its image, which is brilliantly illuminated, which embraces a large field, and which, with a normal eye, is magnified at least twelve diameters, leaves nothing to be desired, and its construction and management are so simple that I cannot conceive that anyone, even on a first attempt, would fail to obtain a satisfactory view of the fundus oculi. The use of atropine is often desirable, but is not essential except in the case of very contracted pupils. It is best to exclude daylight, or a second artificial light on the same table; but artificial light overhead may be entirely disregarded.

Messrs. Weiss and Son and Mr. Hawksley are both acquainted with all details of the instrument; and from both I have received valuable suggestions in the course of the experiments that have led to its construction.

Wimpole-street, Jan. 1872.

POISONING BY STRYCHNINE TREATED SUCCESSFULLY WITH TINCTURE OF OPIUM.

BY THOMAS MOORE, F.R.C.S. EXAM.

A CASE of strychnine poisoning successfully treated by the exhibition of opium, related in THE LANCET of the 23rd of December, 1871, by Mr. Beatty, of Seaham Harbour, reminds me of a similar one which came under my care some years ago.

On May 20th, 1862, when at the house of my father, Edward Moore, F.R.C.S., at Halesowen, Worcestershire, I was asked to see a strong and active young man, in good circumstances, who, some months previously, had been for a short time an inmate of a lunatic asylum. On my arrival at his place of residence, I was informed that he had, after a quarrel with a relative, taken some "rat poison," with the expressed intention of destroying his life. I found him, about ten minutes after taking the poison, apparently none the worse for it; but I administered an emetic of sulphate of zinc and mustard, which acted freely, and I made him drink warm milk-and-water to encourage the vomiting. I did not use a stomach-pump because I did not know where my father's was kept, and I thought it better not to lose time in looking for it, but to get the stomach empty at once with an emetic. About twenty minutes after taking the powder he was seized with a most violent tetanic convulsion, which lasted for about a minute, with well-marked opisthotonos. The "risus sardonicus" was scarcely noticeable; but the intercostal muscles were so rigid, and his face was so blue and swollen, that it seemed as if suffocation must ensue. He appeared to suffer intense agony, and uttered most heartrending cries.

My friend Mr. Bloxam, M.R.C.S., who had been sent for by the patient's friends, came in just at this time, and happened to know that the powder contained strychnine. The convulsion having subsided, we administered a drachm of tincture of opium; but another paroxysm came on in about two minutes. After there had been four convulsions of the same length and violence, with the same interval between them, we gave a second drachm of the tincture. The paroxysms now became somewhat less violent, although they were still frequent. At the end of half an hour from the first convulsion we gave half a drachm, and repeated that dose every quarter of an hour three times. In an hour and a half the convulsions, which we had had the satisfaction of seeing become gradually less violent, ceased. There still remained, however, considerable and frequent twitchings of the muscles, especially those of the limbs; these did not come on at regular intervals, as did the convulsions, but at uncertain periods and frequently.

My father and his assistant (Mr. Hays) came in at this time, and, as our patient appeared to be sleepy, we carried him to bed, where he soon sank into a profound slumber. The latter gentleman stopped with him all night, and reported that, although he slept calmly, the twitchings continued with decreasing severity for twelve hours. He then awoke, complaining merely of headache and stiffness of the muscles, and in three days was quite well. He has remained in perfect mental and bodily health up to this time.

We ascertained from the druggist who sold the poison that it contained upwards of a grain of strychnine. The quantity of tincture of opium we gave was half an ounce.

If the convulsions had merely subsided at the end of an hour and a half, it might have been concluded that the opium had nothing to do with their disappearance, or that the poisonous effects of the strychnine had simply worn themselves out; but as that subsidence appeared to be *pari passu* with the advance of drowsiness, I cannot but think that in this case the narcotic effected a cure.

The patient took a quantity of strychnine sufficient to destroy life, and the symptoms of strychnine-poisoning were well marked and very severe. A smaller quantity of laudanum than was exhibited to him has proved fatal; but in this instance its narcotic power seemed to be partly expended in counteracting the effects of its antagonist, as, after the cessation of the convulsions, it produced merely a deep and quiet sleep, instead of the coma which might have resulted under ordinary circumstances.

Petersfield, Jan. 1st, 1872.

CASES OF EXCISION OF THE KNEE-JOINT AND REMOVAL OF THE OS CALCIS.

BY JOHN N. TERRY,
SURGEON TO THE BRADFORD INFIRMARY.

IN order that excision of the knee-joint may prove successful, it becomes imperative that the cases should be carefully selected. It is not applicable, for obvious reasons, where the bones entering into the articulation are very extensively diseased; for though I admit a better chance of preserving life would be secured by excision than by amputation, yet the limb would be faulty—as a means of progression, it would be short and almost useless. I do not lay stress upon the integuments being extremely disorganised, nor think that such a state militates with any force against excision, for immediately after the removal of dead bone the soft parts set up a healthy action and recover themselves rapidly.

Excision of the Knee-joint. — D. D——, aged twenty-six years, was admitted into the Bradford Infirmary on the 15th October, 1864, with serious and long-standing disease of the left knee-joint. When quite a child disease of the knee set in, and he continued to be laid up at intervals on account of it. About twelve months previous to his admission into the hospital the symptoms became more aggravated; and when admitted, the joint was much swollen, and the structures around thickened and partially disorganised. Below the knee there was great wasting of the limb; it was considerably bent at the knee, and the slightest attempt at altering its angle caused severe pain.

On the 30th October the patient was put under chloroform, and resection of the joint performed, the horseshoe-shaped incision being adopted. About an inch and a half of the end of the femur, and a quarter of an inch of the head of the tibia, were sawn off. The section was made from behind forwards, and the cut surfaces were found quite healthy. A large quantity of softened gelatinous material was cut away by the scissors, and the patella removed, though not diseased. No vessels required ligaturing. The flaps were brought together by several wire sutures, and

the limb put up as recommended by Sir William Fergusson in his work on Operative Surgery.

On January 21st, 1865, eighty-three days after the operation, the bones at the knee being firmly anchylosed, he left the hospital, requiring no other assistance in walking than that of a stick. There has been no great constitutional

From a photograph taken six years after the operation.

disturbance, and the result of the operation has proved most satisfactory. I have an opportunity of seeing him daily, and he now leads a very active life. He has perfect use of the limb, and can walk and run with freedom.

Excision of the Knee-joint.—S. A. S——, twelve years of age, was admitted into the Bradford Infirmary on Jan. 7th, 1868, labouring under strumous disease of the left knee-joint. At the time of his admission the leg was bent at nearly a right angle with the thigh; there was a great deal of swelling round the joint, and several sinuses, extending considerable distances, discharging purulent matter. Pressure or slight movements occasioned acute pain.

As the boy's health suffered in consequence of the irritation of the joint, I recommended its excision. Accordingly that operation was performed on the 24th January. The horseshoe-shaped incision was made; the joint opened into, and found largely disorganised. I removed about an inch of the femur, half an inch of the tibia, also the patella, and carefully got away from around the joint all the tissues that appeared to be in a disorganised condition. Several of the articular vessels required ligaturing. The limb was put up as in the previous case.

Recovery in this case went on uninterruptedly, and unattended with any marked febrile disturbance. Fourteen weeks after the operation he was able to walk about the wards, having perfect use of the limb, without the aid of either crutch or stick; and a week later he was sent to the

From a photograph taken two years after the operation.

Convalescent Hospital. This boy lives near me, and his gait is so slightly altered that it is difficult to detect any imperfection in his walking. He has perfect use of the limb, and can walk and run with freedom.

Removal of the Os Calcis.—W. D——, aged nineteen, was admitted into the Bradford Infirmary for caries of the os calcis, which had been going on for several years. He was quite unable to walk except by the aid of a stick and crutch, and his general health was so much impaired that I recommended his removal for a short period to the Convalescent Hospital.

On his readmission I advised him to have the diseased bone taken away, as he was then in a more favourable condition for undergoing the operation. This was done on the 20th of September, 1863. An incision was begun at the inner edge of the tendo Achillis, dividing it, and drawn forwards, along the outer side of the foot, to a point somewhat in front of the calcaneo-cuboid articulation. A second incision was made across the sole of the foot, commencing at the anterior extremity of the former incision, and continued as far as the inner border of the os calcis. The knife and Fergusson's lion forceps were used freely in the separation of the bone; and I took care to have as much as possible of the periosteum separated with the soft parts. There was a little general oozing of blood, which was arrested by exposing the flaps and keeping ice applied for nearly twenty-four hours.

The patient made a rapid recovery, and he now follows

From a photograph taken six years after the operation.

the occupation of traveller to a grocery business. There is nearly entire regeneration of the os calcis. He walks with ease, except that he puts his foot down as if flat-footed.

Bradford, Nov. 1871.

CASE OF SPASMODIC STRICTURE OF THE ŒSOPHAGUS.

BY JOHN EATON, M.D., C.M.

ON the evening of December 11th, 1871, Mrs. A. F——, aged thirty-four years, called to consult me regarding her throat. She presented a careworn, enfeebled aspect, and her complexion was anæmic, waxy, almost cachectic; her pulse was 96 and weak; tongue flabby and slightly coated; skin cool. She complained of a burning pain, constant, but not always of the same severity, situated in the region of the submaxillary gland; and, whenever she attempted deglutition, a pain also at the left side of the gullet, behind the cricoid cartilage. Patient has for nine years experienced symptoms of atonic dyspepsia attended with much flatulence, and it is seven years since she began to be affected with a sensation of choking in the throat; the latter got gradually worse till three years ago, when she became totally unable to swallow anything except liquids, or very soft, well-masticated food. Patient is much alarmed about her case, and very despondent; the slightest noise startles and excites her; in short, she is hysterical. She has, however, no uterine disorder, has borne seven children at full period, all healthy, the youngest being four months old, and with the above exceptions her health is normal.

On examining the fauces and pharynx I could detect nothing abnormal, but, on passing a probang into the gullet, found an obstruction when the end of the instrument had passed six inches and a quarter beyond the incisor teeth. I prescribed a chalybeate tonic, and on the evening of the 14th ult., after using a No. 8 gum-elastic catheter, passed

a softened and well-oiled No. 1 œsophagus bougie. The latter, after being obstructed for a second or so, went suddenly through the stricture. The patient then complained of pain at the part, but there no longer existed any such sensation in the region of the left submaxillary gland. Next night I passed No. 2, with slight irritation, and now all pain was referred to the right side of the œsophagus. A larger bougie was used every night up to No. 4, each successive one with less irritation. On first attempting to pass No. 5, the tube was apparently contracted, for the bougie, even with gentle force applied, would not penetrate. I waited two nights ere I tried it again, and then it passed easily, showing that in the interval the stricture had spontaneously dilated, and hence that it was a spasmodic one. From this time the patient was able to swallow nearly as well as ever she did, and there was slight soreness only for a short time after passing a bougie. Next night Nos. 6 and 7 passed; two nights thereafter, inadvertently, No. 9 was used instead of No. 8, and with a little difficulty it also passed; three nights thereafter, on December 25th, I passed easily Nos. 10, 11, and 12.

Dec. 27th.—Passed No. 12 again. The œsophagus is now of nearly the same calibre throughout, and it requires a little care to detect the position of the stricture; there is no pain after passing an instrument; the function of deglutition is performed with ease, and patient is taking plenty of nourishment.

At date of writing (9th inst.) the gullet remains freely pervious to No. 12 bougie, and painless. Latterly patient has been taking quinine, iron, &c.; the flatulence is nearly gone; her pulse is stronger and less frequent, and she is much improved in appearance.

This case clearly shows the importance, in certain cases of dysphagia, of using an œsophagus bougie to ascertain whether stricture exists. Such a process done earlier would have saved this patient years of discomfort.

Airdrie, Jan. 1872.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

ANEURISM AT THE ROOT OF THE NECK; LIGATURE OF RIGHT CAROTID AND SUBCLAVIAN ARTERIES; RECOVERY FROM THE OPERATION, BUT WITHOUT PERMANENT ARREST OF THE PROGRESS OF THE ANEURISM.

(Under the care of Mr. JAMES LANE.)

THE number of cases on record of the simultaneous ligature of the carotid and subclavian arteries is so small that we feel that we are justified in exceeding the usual limits allotted to a single case, in order to lay before our readers at length the following details with which Mr. Lane has kindly furnished us.

Jane W——, aged forty, married, was admitted under Dr. Broadbent on the 31st of July, 1871, with a pulsating swelling, about the size of a hen's egg, at the lower part of the neck on the right side. She was a slight, spare woman, otherwise apparently in good health. She said she had first noticed the swelling about three months previously, when it was not larger than a small walnut, and that it had gradually increased to its present size. For some time before its appearance she had suffered from severe cough, with which she was still troubled, though in a slighter degree. She had also had some dyspnœa and difficulty in deglutition; but these symptoms had almost entirely disappeared. She complained of pain in the back of the neck, in the right shoulder, and down the right arm. The tumour was situated over the lower part of the right common carotid artery; it was oblong in shape, with its lower end extending slightly downwards into the chest, behind the sterno-clavicular joint, but as yet there was no alteration in the appearance of the bones, and no indication of erosion having commenced. The pulsation in the tumour was very distinct and *expansive*; but there was only a slightly-marked bruit. No difference could be detected in the pulse in the radial and temporal arteries on the right and left sides. Pressure on the right carotid and subclavian arteries caused no perceptible alteration in the tumour. She was kept in bed, on beef-tea and milk diet, and was ordered iodide of potassium, in five-grain doses, thrice daily. This medicine was continued in gradually-increasing doses for six weeks; at first with some apparent benefit, but towards the end of that time a perceptible enlargement in the tumour had taken place, especially in its transverse dimension. It was nearly circular instead of oval in shape, reaching internally across the trachea to the inner edge of the left sterno-mastoid muscle, and externally beneath the right sterno-mastoid nearly to its outer border.

Under these circumstances she was transferred to Mr. James Lane, who determined, after consultation, to ligature the right carotid and subclavian arteries, which operations he performed on Sept. 20th. In some remarks previous to the operation he dwelt on the great difficulty of forming a correct judgment as to the exact point of origin of aneurisms at the root of the neck, and alluded to the recorded cases which had been subjected to operative treatment by ligature of one or both arteries on the distal side, especially those of Mr. C. Heath (who was present) and Mr. Maunder, in which the double ligature had been simultaneously applied. In both of these the aneurism was believed to be of the innominate artery, but in both the arch of the aorta was subsequently found to be involved. In the present case, he thought the fact that only a very small portion of the tumour was situated within the chest, together with the absence of bruit and of any abnormal dulness on percussion over the upper part of the sternum, rendered it probable that the aneurism was connected with the innominate artery, rather than with the aorta; but the point was one on which it was impossible to arrive at a positive conclusion.

The patient having been placed under chloroform, the operation on the carotid was undertaken first. The artery was exposed in the usual manner, and a silk ligature applied to it just above the omo-hyoid muscle. No unusual difficulty was met with, but the vessel was somewhat deeply seated in consequence of the projection of the tumour below, while it was not thought advisable to place the head and neck in a position of forced extension, which would have brought the artery nearer to the surface, as any attempt to do this seemed to cause a strain upon the aneurism, and had previously been found to cause great pain and distress to the patient. During the operation the artery was observed to have no connexion with the upper part of the aneurism, but to pass down deeply behind it. Pulsation in the temporal artery ceased when the ligature was tied. The subclavian artery was then exposed, external to the scalenus muscle, by the usual incisions. A vein crossing the neck from the acromial side to enter the external jugular was divided, and required a ligature; but the jugular itself was easily pushed inwards out of the way, and gave no trouble. Some difficulty was experienced in bringing the artery into view and in passing the ligature beneath it, from its being overlapped and concealed more than usual by the lower nerves of the brachial plexus. The pulsation in the radial artery was completely arrested by the ligature. The wounds were closed by silver-wire sutures, and covered with lint dipped in carbolic-acid lotion.

On the following day some febrile excitement was observed; the pulse was 120, the face was flushed, and the patient was restless and excited. These symptoms, however, soon subsided, and nothing worthy of record of an unfavourable nature was further noticed as a result of the operation. No alteration in the pupil, or other symptom indicating disturbance in the cerebral circulation, was at any time observed. Pulsation in the right temporal artery could be felt on the day after the operation, though less distinctly than on the opposite side. In a few days, however, there was hardly any perceptible difference in this respect between the two sides. After a time, also, pulsation could be distinguished in the carotids above the ligature, showing

that there was a free retrograde circulation through the circle of Willis down to the bifurcation, and so round into the branches of the external carotid.

There was complete absence of pulsation in the brachial and radial arteries for some weeks, but at length a feeble thrill could be distinguished in them. She suffered a good deal from numbness and tingling in the limb, and sometimes from severe neuralgic pains. It was kept perfectly quiet and wrapped in cotton wool. The ligatures separated from the carotid on the fourteenth, and from the subclavian on the nineteenth day. There was some slight suppuration in both wounds, but they both healed, on the whole, favourably.

Effect of the operation on the aneurism.—No alteration was observed in the tumour immediately after the application of the ligatures, nor could any difference be detected on the following day; but in two or three days it was perceptibly less prominent, the pulsation was less violent, and it was thought the walls of the aneurism were more solid. This improvement continued steadily, and at the time of the separation of the second ligature the aneurism had diminished by fully one-third in transverse measurement, and projected only slightly from the surface, but in longitudinal extent no difference could be noticed. At the end of a month the pulsation was recorded as *very feeble*, a marked difference having been observed in this respect within a few days, and solidification in the walls of the aneurism appeared to be taking place. She had all along (after the first two or three days) expressed herself as much relieved, especially by the diminished feeling of pulsation.

She was allowed to get up and move about the ward, but did not leave the hospital till Nov. 6th, forty-seven days from the date of the operation. Before this, however, it had been observed that any slight exertion increased the pulsation and caused enlargement of the tumour. Before leaving her bed in the morning it was perceptibly smaller than after she had been up a few hours. It appeared questionable, therefore, whether any real advantage had been obtained, or whether the apparent improvement had not been rather the result of the absolute rest in which she was kept after the operation than of the operation itself. Since she quitted the hospital she has been occasionally visited. The aneurism has been steadily increasing in size; it is now twice as large as when she left, and extends upwards as high as the bifurcation of the carotid. The pulsation in it is very strong, and its walls appear to be thinning. The upper end of the sternum and adjacent portion of the clavicle are becoming eroded. She has been strongly urged to return to the hospital, when it was intended to practise electro-puncture on the plan suggested by Dr. Althaus, of placing the negative pole of the battery within the sac and the positive pole outside; but she has hitherto obstinately refused to submit to any further treatment.

LONDON HOSPITAL.

TREATMENT OF HYPERPYREXIA BY BATHS.

(Under the care of Dr. SUTTON.)

THE governors of the London Hospital, on the suggestion of their resident medical officer, Mr. Mackenzie, have made arrangements, on a scale of great liberality and completeness, for carrying out the treatment of hyperpyrexia by baths. In a small ward, containing two beds, there has been placed a bath, with its head only against the wall, so that a patient can be lifted in and out of it with the greatest facility. This bath is fitted with a large supply-pipe for both hot and cold water, and a rapid waste. The cold water pipe comes from a tank, into which, if need be, lumps of ice can be placed, so as to reduce the temperature with the greatest rapidity. By these arrangements the temperature of the bath has actually upon one occasion been reduced fifty degrees in seven minutes. Not the least of the advantages of these arrangements is the fact that the treatment is robbed of all its terrors, and that the patient is not frightened by an array of buckets and lumps of ice, &c.

We append two cases taken from among Dr. Sutton's patients, which illustrate the mode of treatment. These cannot be spoken of as hyperpyrexial, neither of them having reached that temperature (106° F.) at which, in the opinion of Dr. Wilson Fox, the cold bathing should be commenced. It is interesting to remark that, in the case of rheumatic fever, a fall of temperature followed immediately upon the bathing; while, in the case of typhoid fever, large doses of quinine apparently accomplished (?) what cold bathing failed to effect. It will be remembered that in Dr. Wilson Fox's remarkable cases, which were both of them rheumatic fever, large doses of quinine utterly failed to reduce the temperature in any appreciable degree. In the first of these cases recorded below slight diarrhœa and albuminous urine seemed upon one occasion to follow as a consequence of the bath.

Case of Rheumatic Fever with moderately high temperature successfully treated by baths.—The patient, a girl sixteen years old, was admitted to the London Hospital on September 16th, on the twelfth day of her first attack of rheumatic fever. On admission her condition is thus described by Dr. Sutton: "Patient lies on her back, her mouth open, her eyes staring in a vacant manner; seems to pay no or very little attention to what passes around her. If spoken to she says, in a very excited, irritable manner, 'I want my mother.' Her nostrils expand very much during inspiration. Her breathing is laboured, and her cheeks are very flushed." There was a well-marked mitral systolic murmur. At 3.15 P.M. (her temperature being 104°, pulse 140, respiration 26) she was placed in a bath at the temperature of 96°. She was kept in the bath twenty-five minutes, the temperature of the bath being reduced to 83°. When the patient was removed her temperature was 102·9°, pulse 126, respiration 22. When first put into the bath she seemed very comfortable, but when the temperature of the bath was reduced she complained of feeling cold, and cried out a good deal. When removed to bed she said she felt very comfortable; she had lost her wild expression, answered questions rationally, and, closing her eyes, passed off into a sleep. At 9 P.M. the same evening her temperature again rose to 104·4°, pulse 126, respiration 30. She was bathed again as before, and in twenty minutes her temperature was reduced to 102·2°. At midnight on September 17th (temperature 104·1°, delirious and fretful) she was placed in the bath (temperature 98°, reduced to 82°), and when removed her temperature was 102°. When removed from the bath she was observed to shiver. After the bath during the night she passed three liquid dark-yellow stools. On the morning of the 19th her temperature was 101·6°; her general condition had improved; her urine was loaded with lithates, and contained a fourth part of albumen. From that date her condition gradually improved, and on October 17th she was sent into the country.

Case of Typhoid Fever with high temperature; the bath unsuccessful; large doses of quinine quickly followed by a fall of temperature.—The patient, a woman aged twenty-two, appeared to have reached the eighth day of a mild but well-marked attack of enteric fever. She progressed favourably in all respects until the end of the third week, when the evening temperature, instead of falling, showed a persistent tendency to rise. On the evening of the twentieth day the temperature in axilla was 104·4°, pulse 110, respiration 28. Between the twentieth and twenty-eighth days she had in all nine baths (the baths were similar in temperature and duration to those used in the last case, but the reduction was usually made to 70° instead of 80°). These baths had hardly any effect in reducing the temperature, which, at the most, within a few hours of the bath was as high as it was before. The first bath seemed more effectual than the last. Three-quarters of an hour after her last bath the temperature was 104·8°. On the twenty-ninth day it was 105·9°, and on the evening of the thirtieth 105·5°. The administration of quinine was now commenced in doses varying from ten to twenty grains. A fall of temperature immediately followed the exhibition of the quinine, but the fall was very gradual and slow, and it was not till the forty-fifth day that the normal temperature was reached. With the exception of a slight return of pyrexia on the fifty-third day, which quickly yielded to quinine, the patient made a good recovery, and is now recruiting her health at the sea-side.

UNIVERSITY COLLEGE HOSPITAL.

ENCEPHALOID CANCER OF THE TESTICLE; CASTRATION; UNOBLITERATED PROCESSUS VAGINALIS TESTIS; PERITONITIS; DEATH.

(Under the care of Mr. B. HILL.)

THE following case, to which we have been unable to find a parallel, illustrates a danger which may attend the operation of castration—a danger which has heretofore been ascribed only to operations upon testicles retained in the inguinal canal.

H. C——, aged two, was admitted into University College Hospital on Nov. 14th, 1871, with a tumour of the right testicle. His friends stated that he had had a swelling in this region ever since he was three weeks old. He wore a truss for the swelling till he was three months old, when it is said to have disappeared until seven months before his admission to the hospital, when it returned again in the same place. It was supposed by the surgeon who attended him to be an undescended testis. Subsequently the diagnosis of hydrocele was made, and it was accordingly tapped. After this the swelling increased in size.

On admission, the swelling was found to be slightly translucent, and the testicle could be felt behind it. The swelling was globular and elastic; the cord could be felt above it, apparently healthy, and the skin, of a normal colour, was perfectly freely movable over the tumour. A trocar was thrust into the tumour, but only two or three drops of blood escaped.

On Nov. 23rd Mr. Hill (having determined to explore the diseased part, and, if necessary, to remove it) performed the operation of castration. The operation offers no points for particular comment. The spermatic cord, which was ligatured *en masse*, was perfectly healthy at the part where it was ligatured. On examination after removal, the tumour was found to present all the naked-eye and microscopic characters of encephaloid cancer. The chief part of the tumour was formed by the body of the testis, the epididymis being only recognisable as an irregular lump on the back of the tumour. On the day following the operation the patient's temperature was found to be very high (104·3° F.), and on the 25th it was 105·1° F. On the 26th a rash like scarlet fever appeared, and he was separated from his fellows. This lasted till the 28th, when the stools were noted as "offensive"; there was a "pyæmic odour of the breath," and the parts about the wound were much swollen. On the 30th copious diarrhœa set in, the swelling round the wound increased, and the abdomen was swollen. On the next day frequent vomiting set in, and continued till death, which occurred on December 2nd, nine days after the operation.

Autopsy thirteen hours after death.—The wound was covered with a thick layer of foul yellow slough. The abdomen was rather fully distended and tympanitic in front; it was dull in the flanks. On opening the belly about half a pint of dark straw-coloured fluid mixed with flakes of lymph escaped; the intestines were but slightly congested; the congestion was most marked where the folds met; they were not glued together by lymph; they were fully distended by flatus. The pelvis and the posterior part of the abdominal cavity contained large quantities of soft yellow lymph. On sponging out the cavity of the abdomen an opening was seen in the situation of the end of the vaginal process of peritoneum. On putting a probe into this it was found to pass directly into the wound. The canal was then slit up and found to be the vaginal process unobliterated. It had been included in the ligature, but the ligature had cut it through. Its end was perfectly unclosed by lymph and was completely open into the wound, thus opening the cavity of the peritoneum to the air, and into the midst of the sloughy tissue in the wound. The tissues forming the process were thin, like healthy peritoneum. The tube was of uniform size, and presented no appearance of a neck as it would if it were an old hernial sac. At the opening into the abdomen there was a little very soft puriform lymph, but there had been no attempt to close the opening either by firm lymph or by adhesion of a coil of intestine. There was no other feature of interest in the post-mortem examination, excepting that one of the lumbar glands was found infiltrated with cancer which was breaking down.

The processus vaginalis of the opposite side was completely closed.

For the notes of this interesting case we are indebted to Mr. H. C. Lang, ward-clerk. The post-mortem was made by Mr. Marcus Beck.

In remarking on the above case, Mr. Hill said:—"This appears to be a unique case of cancer developing in a testis the serous covering of which still freely communicated with the cavity of the peritoneum—an arrest of development that obtains perhaps more often than is generally supposed. In this instance its presence was the cause of the fatal peritonitis, by permitting the inclusion of a prolongation of the peritoneum in the ligature applied to the cord—a procedure that was, nevertheless, not necessarily fatal, as it was exactly analogous to the old operation for radical cure of hernia by ligaturing the neck of the sac—one sometimes successful, though of course attended by great danger. The post-mortem investigation showed the importance of speedily removing malignant tumours of the testis. During life no change in the iliac or lumbar lymphatics could be detected, yet one gland had already undergone cancerous infiltration. Though the result of the operation was unfortunate from the accidental co-existence of a serous covering to the cord common to the testis and the abdominal cavity, which could not be diagnosed during life, the child's life could not have been greatly prolonged by withholding the operation, and his sufferings would have been more severe than they actually proved. The post-mortem examination helps also to clear up the obscurity concerning the nature of the tumour, which was detected soon after birth, and which disappeared after a truss was worn. Instead of a hernia, it was probably the incompletely descended testis, which, as often happens, only reached its proper position in the first year after birth."

TESTIS IN THE PERINEUM.

An example of this rare deformity occurred lately among Mr. Berkeley Hill's out-patients, and may be added to the foregoing case, where arrest of development had an important influence on the result of the operation. The patient was seven months old, born at full term, and in other respects well formed. His father, and, so far as was known, his male relations are naturally developed. The child's condition was observed by his mother at three weeks after birth, and she believes no change in the position of the testis has taken place since then. The scrotum is well formed, and almost as large on the left as on the right side of the raphe, an unusual circumstance in these cases. Examination with the finger reveals the presence of only one testicle, the right, in the purse. On the left side, the cord passed down from the external abdominal ring to the testis, which formed a slight projection under the skin, a little in front of and close to the ischial tuberosity. The testis, apparently as large as that in the scrotum, was very movable in its unusual position, and could be pushed upwards about one inch towards the ring, but was restrained from going further by a tight band attached below, possibly the gubernaculum still remaining. The freedom of the gland in its abnormal position, which would allow it to slip aside when exposed to pressure, and the firmness of this restraining band, were decisive against any attempt to put the testis into the scrotum, the more so as among the few recorded instances of this peculiarity attempts to do this have failed. Again, this position of the gland does not prevent the growth of the gland, for Ledwich, who dissected an example, found spermatozoids in the displaced testis; in another case, Godard's, the patient had been a soldier, was able to ride and march without fatigue, and was at the time of the observation a father and a grandfather. This position of the testis is natural in certain pachydermata—the swine, for example, where they are always lodged in the perineum.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—On the 5th inst.—Mr. J. M. Burton, F.R.C.S., President, in the chair—Dr. George Johnson read a paper "On the Pathology and Treatment of Cholera," in which he ably enunciated his now well-known views of that disease, and defended himself from attacks that have recently been made upon him. Drs. Clapton, Carr, Dixon, Venables, Gooding, and Moon, and Mr. Mitchell, took part in the discussion that followed.

Reviews and Notices of Books.

Diseases of the Lungs; including the Principles of Physical Diagnosis, and Notes on Climate. By WALTER HAYLE WALSHE, M.D., Emeritus Professor of Medicine and of Clinical Medicine in University College, London, late Physician to University College Hospital, Consulting Physician to the Hospital for Consumption. Fourth Edition, much Enlarged and to some extent Rewritten. 8vo. London: Walton.

THE profession will gladly welcome the fourth and a still improved edition of this valuable work from the hands of one who is universally regarded as a master of modern medical clinical teaching—the Emeritus Professor of Medicine in University College. Of all the teachers of medicine of the present day no one has more distinguished himself by accuracy of statement and sagacity of judgment than Dr. Walshe. We may cite the testimony of Sir Thomas Watson, who says that for Dr. Walshe's opinions he has a very great, and for his facts an absolute, respect.

This book has, we think, been much improved in appearance; it now corresponds in size with most of the ordinary text-books of medicine and surgery. The printing is now excellent; and this is certainly a matter of importance. The plan of the work has undergone some modifications, which, in every case, have been such as will increase its value. Much new matter has been added; so that, in the truest sense, this edition has been enlarged.

In the chapter on Physical Diagnosis, Dr. Walshe insists with more and more earnestness that, "as a single property of percussion-sound, clinically considered, emphatic alike in its diagnostic and prognostic signification," *pitch* should be placed in the first rank. This he has taught for many years; and, from our own experience with students, we quite agree with him—nay, further, we think that if those who begin this subject of physical diagnosis of diseases of the lungs were to clearly bear this in mind, they would not be so liable to be misled by that least important of signs, the *intensity* of a sound. Again, with pitch you have closely associated what is probably the next important condition—the *duration* of the sound; and these two, taken together, are, we think, more readily appreciated than any of the other conditions; for it is not everyone who can distinguish, say, fine degrees of difference in *quality*.

We find an exceedingly interesting and valuable section in this edition on Affections of the Diaphragm, among which are included displacements, paralysis, spasm, inflammation, fatty degeneration, progressive muscular atrophy, hernia, &c. The effect of the publication of this will, doubtless, be to direct the attention of the profession more particularly to this organ, and, in the end, to add much to our knowledge, and, therefore, to our power.

The articles on Syphilitic Bronchitis and Syphiloma of the Lungs have been much extended and improved. As clinical experience accumulates, and true views of its pathology are more widely known, we may hope that syphilis will become more and more amenable to treatment, and thus many who appear condemned to wear out miserable days may be restored to health and strength. The sections on Nervous Dyspnœa and Apnœa and the table of antecedent conditions of lung in Emphysema remain much as they were.

Dr. Walshe thinks that mere "altitude of habitation, calling for perpetual effort in the breathing-act," does not explain every case of Hypertrophy of the Lung. He believes that there is a difference in the bulk, weight, and form of the lungs often in different populations occupying soils at exactly the same height above the sea-level. He still persists that the weight of the lungs stated in the books of anatomy is much above the reality; and that normal lungs do not weigh more than from nine to twelve ounces each.

In the treatment of Acute Pneumonia we have some considerations that are applicable to the practice of the present day. It is to be regretted that there is too great a tendency to argue on the *post hoc propter hoc* principle in respect to therapeutics; but Dr. Walshe reminds us that in some cases, instead of saying that our remedies have cured the disease, it would probably be more just to acknowledge the wondrous power of the *vis medicatrix naturæ*—"the recovery occurring not through, but in spite of, the agencies intended to secure it." It certainly appears remarkable that different observers have attained equally successful results from treatment varying from lowering measures, on the one hand, to copious libations of brandy on the other. All this impresses upon us the fact that we should learn the natural history of a disease before we assume that we have cured it by our remedies.

Among the causes of Gangrene of the Lung there are added to the list given in the last edition, contracting pleural exudation, septicæmia, and mercurialism. Dr. Walshe's experience agrees with that of those modern observers who have failed to recognise any connexion between gangrene of the lung and epilepsy.

On the subject of Pulmonary Hæmorrhage much new matter has been added. The statement that bronchial hæmorrhage is frequent is denied; and it is asserted that, in the majority of cases, when blood in any quantity has made its way into the bronchial tubes, even when heart disease is present, it will be found that "the parenchyma of the lung, and not the mucous membrane, has given way molecularly." The doctrine of the bronchial origin of hæmoptysis in general, which has found recent advocates, especially in Germany, is said to be wanting in the "ocular proof." We have several conditions added to those which are to be found in the previous editions of the work as causes of hæmoptysis. Among these are—hysteria; vicarious pulmonary congestion; diminution of barometric pressure; violent efforts; blood diseases, as septicæmia; wounds and injuries to the lung; fragile state of the vessels of the mucous membrane of the bronchial tubes; aneurism of the minute or larger branches of the pulmonary arteries, &c. While allowing full share to all other affections likely to produce hæmoptysis, the grand cause, clinically speaking, is stated to be tuberculosis of the lung; so that it comes to be one of the most significant symptoms of phthisis.

Of all the questions which have engaged the attention of the medical philosophers of the present day, none has had a more prominent position than this subject of Phthisis. It is, therefore, with great eagerness that we look for Dr. Walshe's matured opinion. He begins by stating that although many other conditions "possess the characters of *phthisis* in the etymological sense of the term," yet he limits "the application of the phrase pulmonary phthisis, or consumption, to tuberculous disease." This seems to us a wise course, for, after all, half the disputes and misunderstandings of this question arise from the looseness and want of definition in the terms used. Micrologists would make the specific *tubercle-cell* to be nothing more than a simple overgrowth; but we must bear in mind that this part of the subject is only in its infancy, and that improved methods may show that what is now a seeming identity is a "diversity undreamed of at the present day." In speaking of "phthisis ab hæmoptoe," Dr. Walshe acknowledges that phthisis may supervene on a hæmoptysis in a person with apparently no latent tuberculisation; but he says that there must have been in these cases a "predisposition, locally represented, with much probability, by an ill-nourished fragile state of the pulmonary capillaries."

Further on he says that it is an undecided question what part the effused blood plays in working out the eventual disintegration. In the general view of the antagonisms of tuberculisation, we have almost overwhelming evidence to show that ague and tuberculosis are antagonistic; nay, even that malaria has a curative influence on imported phthisis. Notwithstanding the weighty affirmation of Trousseau, that spanæmia ought not to be cured, as it is antagonistic to tubercle, it is maintained that there is an entire want of evidence to prove that the cure of these cases by iron has ever "ushered in the outbreak of tuberculisation." Dr. Walshe does not regard the hypothesis that the want of power of digesting fats is a cause of phthisis as one of any value. We find in the volume much valuable matter on the influence of climate on the production of phthisis. The phrase "curable stage of phthisis," used to designate the earliest morbid condition, is objected to on the ground that no one stage is more surely curable by art than another, some of the most satisfactory examples of practical recovery occurring subsequent to excavation. On the influence of marriage on phthisis, there is much that is worthy of most serious consideration, the subject being discussed from a social, moral, and legal point of view.

In the section on Mediastinal Tumours there is a table showing at a glance the points of difference in empyema and in tumour of the mediastinum. In this table we find specially noted the fact that in empyema centripetal pressure signs are absent, but that in tumour they are present in various groupings.

We now come to what is perhaps the most interesting and important feature in the book—namely, the Influence of Climate. No one can speak with such authority on this subject as Dr. Walshe, for we must remember that his experience has been exceptionally great, and has extended over a very long period of time. This account before us appears to be the only one which takes in the whole subject, classifies it, and gives an *unbiased* account. In judging of climates it has been too much the practice to send patients to places of a certain chemical composition, so to speak, but we are assured "that there are influences of climate wholly beyond the range of meteorological investigation—climates, in truth, of closely the same atmospheric characters, which produce effects very dissimilar on the human economy." "The physiological influence of all varieties of change of climate must be *observed* to be known and understood,—and *à fortiori* the influence of such changes in morbid states of the frame." The only way to acquire this knowledge is to learn of those who have thorough experience in the subject, and are thereby competent to say which is good and which is not good. We are assured that "there are few, if any, pulmonary affections which may not be either cured, suspended in their course, or relieved by the influence of judiciously selected climate." Phthisis is sometimes arrested, and even reparative action may set in, after a change of climate; but in some cases the change "painfully fails" to do any good. Then, again, we learn that in the selection of an appropriate climate we have not to regard the absolute temperature of the new spot, but rather the relationship which it bears to that of the old one. Consumptive patients may be benefited by a change to a climate even when those born within it fall more or less frequently victims to phthisis. Contrary to popular opinion, "the weight of evidence appears to bear rather against than in favour of marine air, where it is obtainable—that is, on the sea-shore," in cases of lung affections. But, apart from the actual influence of the climate, we must take into consideration the temperament and disposition of the patient; a patient who is not happy away from home is not likely to be much benefited by the change.

We have also valuable advice on the selection of Winter and Spring Climates for invalids suffering from lung affections. First of all, the climates are classified into four groups—viz., (1) sedative; (2) stimulant; (3) those having an atmosphere adventitiously impregnated; and, lastly, (4) those deriving special characters from their altitude above sea-level. The characters of the various groups are then described; after which they are split up into sub-groups, which include all the British and foreign places that come under the particular group. In the more detailed account of these groups, the last one—i.e., that deriving special characters from its altitude—is to be specially noted, as it gives unmistakable evidence of the value of a change to such climates even when the softening process in phthisis is far advanced.

We need scarcely say how cordially we commend to our readers Dr. Walshe's revised work.

THERAPEUTIC TRADITIONS.

No. I.—ELIMINATION.

EVERYONE admits that it is desirable that, from time to time, the medical profession should take stock of its intellectual possessions and appraise their value. It is a strange fact, however, that we rarely do this in regard to therapeutics. We doctors are glad enough to enumerate our small acquisitions of what we call "practical knowledge." We chuckle over some cunning combination of astringents and sedatives, or of purgatives and carminatives. Yet, as a rule, we know but little, because we have never thought carefully, about the main principles that underlie our action in regard to treatment. This sounds like a harsh statement, but it is literally true; and though we cannot afford the space that would be necessary for its full demonstration, we propose, in the present and a few following articles, to show how true it is in several important instances. Certainly no better time could be found for such an inquiry than the commencement of a new year's work; and we shall ask our professional brethren to put some very plain questions to themselves respecting the meaning, if any, which they attach to three or four of the principal shibboleths which are constantly in the mouths of us all when we attempt to explain the reasons for our treatment in individual cases of disease. Among these magic phrases which, to many of us, yield unspeakable comfort, but to a minority seem to mean rather worse than nothing, there is none more characteristic than the word "elimination," about which we mean to say something on the present occasion.

The phrase "elimination" represents, perhaps, more distinctly than any other similar term, a really great idea of the past which, in its day, has piloted some of the ablest investigators to discoveries of no mean value. In its primary form the hypothesis was an integral part of a system of biology and pathology that was as purely imaginary as an Arabian Night's tale. Disease was supposed to be a definite something which invaded the organism from without, or else was concocted from some "humour" natural to the organism, but accidentally present in morbid excess. In either case it was a positive and objective existence, which ought to be, and which could be, *eliminated*, or expelled from the body; a work which was always attempted by the *vis medicatrix naturæ*, a mysterious power residing within the body, and constantly inspired by an almost personal animosity towards the hostile entities known as diseases. Unfortunately it appeared that the *vis medicatrix* was very often unequal to the completion of the task, and it was therefore the

duty of the physician to assist by the employment of various *evacuant* remedies. The *vis medicatrix* was supposed to cast out the enemy in a hæmorrhage, a sweat, a diarrhœa, or a diuresis, and so the physician was encouraged to imitate these processes, in the full faith that he, too, might chase the lurking evil out of the body by such means. It was like a rat-hunt in a barn with the barn-doors all left *open*.

It cannot be denied that even these crude theories of disease and its cure led indirectly to valuable discoveries, though at the cost of much needless human suffering and loss of life. But at the present moment they would certainly be repudiated with contempt by any educated practitioner who should be accused of holding them. Yet the words "elimination," "eliminatory efforts of nature," and the like, are constantly being used; and it is really of more consequence than many of us seem to suppose that some definite understanding should be arrived at concerning the meaning which is to be attached to these words at the present day. In the mouths of many they are evidently a mere misnomer for "evacuation," the speaker not intending to convey the notion that the disease is expelled, but simply that relief has been given, in some more or less intelligible way, by the spontaneous or artificial discharge of an unusual quantity of one or more of the natural secretions. This, though a very unfortunate mistake, does not involve the self-deception of the person who employs the incorrect phrase, and is, therefore, comparatively harmless. It would be a more serious matter if we were to find the old humoral pathology, and the equally exploded vitalistic theory of life, revived in our midst; and it must be confessed that sundry recent occurrences have given plausible grounds for the suspicion that such is the case. The words "elimination," "eliminative treatment," "eliminatory efforts of nature," have been employed by certain writers (in regard to cholera, and even in regard to typhoid fever) in a manner which, we take leave to say, does afford *primâ facie* reason for supposing that they hold the doctrine respecting the *vis medicatrix naturæ*, and its eliminatory efforts, in the ancient sense; and we must say that if the doctrine that a disease like cholera or typhoid fever comes to an end because the whole of the poison has been eliminated by the efforts of nature (or by these *plus* the kind assistance of the physician) can be explained upon any other theory, we have yet to hear it.

For our own part we confess that we know no single example in which a disease, undoubtedly caused by organic poison directly passing from the infecting to the infected person, presents the slightest coincidence in dates between the subsidence of the specific symptoms and the departure of the poison from the body. Certainly there is no such coincidence in the case either of small-pox, of measles, of scarlatina, or of syphilis. But if these be not instances of diseases that get cured by elimination, where are such diseases to be found? Are we not bound to reconsider the propriety of employing *any* phrase which would imply that "Nature"—whatever that may be—has a general tendency to cure infective diseases by "throwing off" a "poison"?

In short, if pathologists propose to convince us that the so-called "eliminating" treatment is *a priori* likely to succeed in curing an infectious disease, they must produce evidence of a kind that we have never met with in order to show that Nature has any deliberate tendency towards such a method of cure for diseases. We could suggest a very different tendency (or general law rather) which really does appear to rule the phenomena occurring in organisms that have been infected with organic poisons derived from other living bodies; but on the present occasion we have preferred to confine ourselves to the task of criticism by questioning. We invite any of our readers who may think it worth the trouble, to furnish us with some genuine examples in which it can be shown that the cure of a disease has been effected by the elimination, by natural means, of an infecting organic poison from the body; and until some respectable evidence of such a fact has been adduced we must consider the propriety of using any expressions which imply such a process to be gravely questionable.

Foreign Gleanings.

DIGITALIS AN ANAPHRODISIAC.

M. GOUBVAT is publishing, in the *Gaz. Méd. de Paris*, a series of papers on the action of digitalis. In a late number (Dec. 23rd, 1871) we find the following:—"When digitalis or digitaline is administered for some time to a man in full possession of sexual powers, the latter become gradually weakened, the propensities disappear, the secretion of the liquor seminis diminishes by degrees, and may at last vanish altogether. These results are explained by the antiplastic and lowering action of digitalis. The antiphlogistic properties of the drug are the secret of its good effect in spermatorrhœa. With women, digitalis and digitaline excite strong, regular, and intermittent uterine contractions, and control metrorrhagia; hence digitalis is employed in exciting abortion. (Tardieu.) It is probable that digitalis acts as an anaphrodisiac in women also; inducing, by long-continued use, impotence and sterility. In men it hinders the secretion of the liquor seminis, and in women it may interfere with the development of the Graafian vesicles, the propagation of the species being thus doubly retarded.

TYPHOID FEVER NOT GENERATED BY PUTRID GASES.

In the *New York Medical Journal* (1871), Dr. Roberts defends the above-mentioned position, and thinks, with Sir Thomas Watson (see THE LANCET, December 9th, p. 811, foot-note), that, however powerful the emanations from drains &c. may be, they cannot generate typhoid unless the dejections in the drains be charged with matter originating from typhoid patients. The author cites New York, Naples, Edinburgh, and London as proving his point. The emanations from the Thames, for example, in 1858 and 1859, did no mischief. Livingstone mentions a putrid marsh which did not harm his companions nor spread disease among the inhabitants; not to speak of animals, as eels, pigs, and birds, which thrive on putrefaction.

THE CAUSE OF SIMPLE HYDROCELE.

M. Panas publishes eight cases in the *Archives Gén. de Méd.* (January, 1872), from which he concludes that this affection is caused by partial epididymitis, as he generally found the epididymis more or less indurated in all his cases. Of course he ascertained that the patients had had neither orchitis, syphilis, nor gonorrhœa; that they did not labour under tuberculosis, and that the corresponding testis was perfectly sound.

EXPLOSIVE BULLETS.

M. Thierry states, in the *Gaz. des Hôp.* (December 30th, 1871), that he does not believe such bullets were used in the last war. Those who suspected this foul play were influenced by the extensive mischief inflicted upon the trunk or limbs. But M. Thierry has had under his care a case of severe shattering of the upper part of the thigh, in which the pain was very severe, the crushing of parts very distressing; but the ball, on being found, was of the ordinary kind.

NECROSIS OF BONE IN STUMPS.

Messrs. Chipault, of Orleans, and M. Cazin, of Boulogne, have sent to the Surgical Society of Paris preparations showing that, in one case the shaft of the tibia, and, in the other, the diaphysis of the humerus, after amputation for gunshot wounds, perished for a great length owing to the loosening of the periosteum. The necrosed portions were removed, the patients did well, and the spared periosteum secreted much bone.

THE LANCET.

LONDON: SATURDAY, JANUARY 13, 1872.

WE called attention last week to some figures of terrible significance, expressive of the havoc worked in England by small-pox in the course of the year that has just closed. The fact that in the seventeen chief towns of the kingdom the deaths from small-pox during the year amounted to the frightful number of 13,174 is one that can hardly be too frequently repeated, or too earnestly pressed upon the attention of all classes of the community. It represents a preventable mortality that is almost entirely the result of over-security. The immunity given to the better classes generally by their use of vaccination has rendered the present generation unmindful of the horrors of bygone times, when faces seamed and scarred and disfigured were to be encountered in every street, and when no one could be considered safe from the disease until he had actually passed through it. Prior to JENNER'S time, small-pox was the scourge of the land. Kept constantly alive by the practice of inoculation, it was never long absent from any locality; and was a continually operating cause of deformity, of imbecility, of blindness, of death. We have now for so many years been spared anything like its extensive prevalence, that the occurrences of former days have quite passed out of recollection; and we sit and listen patiently to the ravings of anti-vaccinationists, or to the excuses of those who, from mere apathy, have suffered their children to grow up in peril themselves as well as sources of danger to the community. The occasion is surely one on which the more intelligent classes of society should employ their intelligence in order that their will may prevail, and should urge upon Parliament, by all legitimate means, the importance—nay, the absolute necessity—of making better provision than at present for vaccination and revaccination. It is quite manifest that the existing arrangements have largely failed somewhere, either from the apathy of boards of guardians, or from the want of inspectors, or from the imperfect performance of the operation, or from defects in the quality of the lymph. We strongly lean to the opinion that the inadequate payment of vaccinators, whether public or private, has very greatly tended to diminish the importance of the proceeding alike in the eyes of those who do it and of those who suffer it. The fact that a public vaccinator receives eighteenpence for a successful case and nothing for an unsuccessful one, as well as the fact that some practitioners vaccinate for nothing those children whom they have brought into the world, both tell, by their constant operation, against the possibility of attaching any great importance to the matter. In life we do not so much believe what people say, as what they do. Those in authority take care that large salaries should be paid to judges and other legal functionaries; and it is an easy and direct inference that immense importance is attached to the proper administration of justice. They allow a beggarly pittance to be paid to a public vaccinator; and it is an equally easy and direct inference that they attach little or no importance to vaccination. So it comes to be regarded as a thing that may be done any time or any how; and it is pushed out of the way and disregarded, or put off to a convenient season which may never arrive. Until lately, small-pox has for many years scarcely been amongst us as a pressing and actually present danger; and the extent and prevalence of vaccination have not been tested by the general diffusion of variolous infection. The trial at length has come, and has found us completely unprepared. The lesson, we may hope, will not be wholly thrown away; but will lead to an earnest endeavour, for the future, to take the easy precautions by which the enemy may be kept at bay. For the 13,000 deaths we have perhaps this excuse to plead, that we thought ourselves far safer than the event has proved. Probably most people supposed our system of national vaccination to be fairly effectual. We now see that much of the work must have been done in a half-hearted, perfunctory way; that the meshes in the net of our law were so large that hundreds of children slipped through them; and that we had in our midst a numerous and totally unprotected population. This must now, to a very large extent, have been killed out, or have obtained future immunity by passing through the disease. It becomes a national duty to see that the calamity we have just undergone should not be suffered to recur.

THE Life of Sir HENRY HOLLAND is one to be recollected, and he has not erred in giving an outline of it to the public. In the very nature of things it is such a life as cannot often be repeated. Even if there were many men in the profession capable of living to the age of eighty-four, and then writing their life with fair hope of further travels, it is not reasonable to expect that there could ever be more than a very few lives so full of incidents worthy of being recorded autographically as the marvellous life which we are fresh from perusing. The combination of personal qualities and favourable opportunities in Sir HENRY HOLLAND'S case is as rare as it is happy. But that is one reason for recording the history of it. Sir HENRY'S life cannot be very closely imitated, but it may be closely studied. We have found the study of it, as recorded in the book just published by LONGMANS, one of the most delightful pieces of recreation which we have enjoyed for many days. And if we cannot all follow closely the example set us by Sir HENRY, we can gather from it some lessons which, as medical men, we are apt never to learn till our powers begin to flag or fail under the drudgery of monotonous professional work.

We have all heard of the two physicians charging each other—the one with knowing nothing but physic, and the other with knowing everything except physic. One great value of Sir HENRY'S life is to show the possibility of a medical man knowing medicine so well, notwithstanding that he was never officially connected with a hospital, that he could write "Medical Notes and Reflections" that are

still read by all cultivated practitioners as models of sagacious and careful writing, and retain for a great number of years a very high position as a consulting physician, and yet at the same time be on intimate and confidential terms with the leading men in science, in letters, and in politics in nearly all Europe and in the United States.

Sir Henry Holland's practice was enough to satisfy any ambitious man; but we owe him special thanks for the example he has set of putting a limit to his wish for practice. Most medical men are apt to think that they cannot have too much practice, and they would rather lose their health than lose a patient by taking a holiday. They do not practise in order to live so much as they live in order to practise. It has not been so with Sir Henry Holland. He has purposely avoided overcharging himself with professional work. Yet he has practised dutifully. Excepting the annual two months of autumnal holiday which he generously prescribed for himself at the outset of his career, he never was a day out of London in the year unless professionally summoned. The reality of his professional work may be judged of from the class of patients he had to advise and the nature of the income which he received. Among his patients were Pashas, Princes, and Premiers. Prince Albert, Napoleon III., Talleyrand, Pozzo di Borgo, Guizot, Palmella, Bulow, and Drouyn de Lhuys, Jefferson Davis, Lord Sidmouth, Lord Stowell, Lord Melbourne, Lord Palmerston, Lord Aberdeen, Lord Lansdowne, Lord Lyndhurst, to say nothing of men of other note, were among his patients. Sir Henry tells us, characteristically, that one day he astonished the present Lord Derby (then Lord Stanley and Foreign Secretary), when his Lordship was dining alone with Sir Henry, by informing him that forty-five years before that time he attended frequently his great-grandfather. Such patients represent no slight professional harass and responsibility. As to Sir Henry's income, he set bounds to it. He had not been in practice more than four years before it reached £1200, and he resolved that he would restrict his practice so that it should not exceed £5000, which sum it nearly though not quite reached. These facts are sufficient evidence of Sir Henry Holland's professional work, and yet he has contrived so to do it as to have had leisure for mastering a very high degree of classical knowledge, chiefly acquired by private study and a careful use of minutes; for keeping himself *en rapport* with the letter and spirit of the latest discoveries in physical science; for two months' adventurous and original travel every autumn, and, until very lately, with no companion; and for the full enjoyment of society in its highest and best forms. Sir Henry's travels would make a book of themselves. No country comes amiss to him. Volcanic regions are his especial delight; but he is equally at home in Greece and in the United States. His first foreign travel was a voyage to Iceland in 1810, having for a companion Dr. Richard Bright, who was also one of his school companions, taking with him vaccine lymph, and seeing more of the island than previous visitors had seen. Sixty-one years later, in the year 1871, he revisited Iceland, and was received at a public banquet of the Althring, or Parliament. Perhaps Sir Henry's most congenial travels, and those he regards most affectionately, are his early travels in Greece, elucidating various doubtful subjects of interest in classical geography. The news of Napoleon's escape from Elba reached Sir Henry at Naples, travelling with the Princess of Wales, and on the occasion of a great ball given by the Minister of Finance. He twice traversed parts of Portugal and Spain during the peninsular war, visiting the military hospitals, hearing the bombardment of Cadiz by Soult, narrowly escaping on one occasion being made a prisoner, and riding over the battle-field of Vittoria while many of the killed were yet unburied. He has visited America eight times, and regards it almost as a home. In the year 1863, and when seventy-five years old, he was an active spectator, not to say actor, in the civil war then raging in the States, receiving hospitalities from President Lincoln and his principal civil and military colleagues. Sir Henry has rare qualities as a traveller. He was never sea-sick; if the sea was too stormy or the rain too heavy for being on deck, he would retire below and work at an article for the *Edinburgh* or the *Quarterly*, between which happy extremes he divided his literary and scientific favours. He slept well. His knowledge of the ancient and later classics has given him a constant supply of recreative and delightful reading, and his deep familiarity with every question in letters and in science procured him the ready friendship of remarkable men in every place he visited. He could hold equal converse with them all. He could enjoy and criticise the acting of Talma, and he could give help to Schweighauser in his translation of Herodotus. He could talk politics with Lord Grey, or theology with the Bishop of Iceland. He could discuss astronomy with Laplace, definite proportions with Gay Lussac, and the Cosmos with Humboldt. Nothing is more noticeable in the brief accounts of his travels than the absence of medicine and the rarity of any allusion to physicians. He seems to have left all medical cares in Brook-street, and to have abandoned himself to holiday in the form of anything and everything that was good out of medicine.

Such has been, and such we are glad to say still is, the manner of life of Sir Henry Holland, who by the breadth of his knowledge has added lustre to the profession. The elements of his character are easily defined, though they are rarely met with in one person. He loves Nature, and has often been willing to be alone with her. He has investigated her secrets in the true spirit of a philosopher, and enjoys the latest discoveries in physical science as much as if he had himself made them. Like the very few men whom he specifies, such as Young and Herschel, he combines the love of letters with the love of science; and besides all these qualities he is a man of society. He has been no recluse, but a prominent West-end physician who has found time to cultivate other sciences besides that of medicine, and at the same time to make a prominent figure in London society from 1815 down to this present. We cannot all be Court physicians, and practise among patients who forsake town in the autumn; but we can all take a lesson out of the life of Sir Henry, and by so doing enrich and prolong our own, and raise the reputation and influence of the profession.

DR. BALFOUR'S paper "On the Relative Health of H.M.'s Soldiers and Seamen," read at a recent meeting of the Statistical Society, seems to us to suggest some comments that it failed to receive in the subsequent discussion. *Imprimis*, the close parallelism that runs between the figures is a curious fact, considering the different conditions surrounding those living on shore and on ship-board. Remarks on pathological or medical points at a Statistical Society might certainly have been out of place; and some of the speakers dwelt upon the bearings which Dr. BALFOUR's data had upon the sanitary and other improvements that have of late been introduced into both services. It appears that there is a relatively greater proportion of diseases of the circulatory and pulmonary organs and of ophthalmia among soldiers. We confess that this is what we should have anticipated. The etiology of army ophthalmia has, to our minds, been tolerably clearly worked out. It is liable to be developed among a body of individuals sharing an atmosphere in common in their dormitories, and exposed to the exciting causes of ophthalmia—such as draughts, glare, and mechanical irritants like dust and sand. The first stage of the complaint is characterised by very definite signs, when carefully sought for—viz., the presence of the so-called "sago-grain granules" in the tarsal conjunctiva, without any concomitant subjective symptoms; these, however, being superadded on exposure to any exciting causes capable of lighting up inflammatory reaction. The prevalence of ophthalmia of this kind in any number of persons living in common is a tolerably certain indication of their existing under conditions of defective hygiene—overcrowding, bad ventilation, and an "organic" atmosphere. And we suspect that the same test would apply to our large pauper institutions for children. We should be glad to have some facts bearing on this point, in order to ascertain whether the increased cubic space and improved sanitary conditions under which our soldiers now live have diminished the prevalence of this disease. A similar state of atmosphere in a climate like that of Great Britain would be very likely to predispose soldiers to those distinctive pulmonary lesions that so closely resemble consumption, but which, according to a strict pathology, could hardly be classified with *tubercular* phthisis. The warm, close, and impure atmosphere of a barrack or guard-room forms the predisposing, and the exposure during night duties the exciting, causes of such pulmonary diseases. Of course there are many other factors at work, such as the syphilitic taint, climate, &c.; but those we have named are among the most common.

Much has been said and written of late regarding the prevalence and causes of aneurism and cardiac disease in the army, and we can only briefly advert to the subject. In the first place, so much difference of opinion is expressed as to the relative prevalence of these disorders among the civil, naval, and military populations, and the increase of late years of aneurism among the latter, that we should be glad if Dr. BALFOUR could give us some trustworthy data thereon. We think, however, that the opinion of those who hold that these affections are more common among soldiers than civilians is correct. The effects of aortic heart disease and aneurism are most frequently witnessed in persons whose occupations are of a laborious kind. Aneurism is relatively uncommon in women, and it is occasionally developed in them when they have undergone a more than ordinary amount of muscular exertion. Again, aneurism is most frequently developed at those portions of the arterial system where we should physiologically expect there was the greatest strain exerted upon the arterial tunics. Of so much importance do we regard this element, that we conceive Dr. MOXON and the German pathologists to be very near the mark in assuming that the atheroma of arteries is the result of a chronic process of inflammation from a relatively slower and feebler operation of the same physical causes that would, in younger subjects, induce active inflammatory changes in the coats of vessels, and consequent aneurism. We have not space to dwell now upon the view—about which we are somewhat sceptical—recently put forward in the *Edinburgh Medical Journal*, to the effect that the heart, under certain conditions, acts as a weight suspended from the aorta, and in that way tends to diminish the radius of the curve which the vessel makes, and so to obstruct the circulation through it; but it is certain that aneurism is frequent in soldiers at an age when these atheromatous changes are uncommon, and, in fact, where no such changes can be traced in the vessels after death. Whether aneurism has increased since the introduction of running drill is an interesting topic on which statistical evidence is required.

SOME time has elapsed since the publication in England of any researches on the cerebral circulation, Mr. DURHAM's, we believe, being the last. During the past year, however, three essays have been published in Germany by MM. JOLLY, ALTHANN, and PAGENSTECHER, a *résumé* of which is given in a recent number of the *Centralblatt*. M. JOLLY carefully fixed a manometer into the skull of the animals he experimented on, the oscillations of the mercury or saline solution contained in which were recorded by an apparatus similar to MAREY's sphygmograph. With this instrument he found that there was usually a positive pressure on the side of the brain, which rose with expiration and fell with inspiration. In dogs the oscillations amounted to from 25 to 145 millimetres of the *water*-manometer; as maxima in rabbits to from 7 to 75 mm.: but it could also become negative. The pulse caused a variation of from 5 to 10 mm. M. JOLLY proceeded to examine the variations in the cerebral pressure produced by injections of a one-half per cent. chloride-of-sodium solution into the carotid under various pressures, and found that considerable modifications occurred; a rise of from 18 to 52 mm. in the cerebral pressure resulting from injection made under a pressure of 120 mm. of mercury. A maximum can, however, be obtained beyond which no further injection into the vessels causes any increase. Compression of the carotids exerts only an inconsiderable influence in diminishing the intracranial pressure; but compression of the jugular veins produces a prolonged and equable elevation of pressure, which again diminishes when the pressure is released. Excitation of sensitive nerves increases the intracranial pressure considerably; but only in consequence of increased respiratory movements, since it

was very small in curarised animals, and appears to be chiefly due to slight excitation of the vaso-motor centres. Irritation of the cervical sympathetic at its cranial extremity caused on several occasions distinct augmentation of the intracranial pressure, but the effect of irritation of the vagus was very variable and uncertain. No change was observed in the vessels of the pia mater on pressure of one or both carotids, when examined through a piece of glass luted into a trephine hole, which would appear to show that the conditions for the establishment of the collateral circulation are more favourable in animals than in man, since in him ligature of a single carotid will sometimes cause fainting or temporary paralysis. Examinations made through the same window showed that the vessels of the brain underwent considerable increase in size when a saline solution was strongly injected into the carotids. That a certain degree of independence exists between the circulation of the two sides is interestingly shown by the fact that, if a saline solution be injected into one carotid, the retinal vessels can be made to appear quite pale on that side, whilst they preserve their natural colour on the other side. When the injection is driven with great force, considerable exophthalmos occurs, with contraction of the pupil. On asphyxiating an animal, the intracranial pressure rises considerably, with obvious hyperæmia. After a time the pressure falls, with coincident anæmia. M. PAGENSTECHER trephined the skulls of dogs, and injected a mixture of wax and tallow, melting at 122° (?), under a pressure of about 100 mm. of mercury, between the bone and the dura mater. After the death of the animal, the quantity of the wax contained in the skull was compared with the volume of the cranial cavity itself. He believes he has been able to show that the cause of the symptoms of pressure are referable to compression of the vessels. The experiments appear to have been very painful in non-narcotised animals, probably owing to the forcible detachment of the dura mater from the bones; and epileptiform convulsions, opisthotonos, and emprosthotonos, with gradually increasing coma, were constantly observed when the injection was rapidly made. The changes in the pupil resulting from the variations in the amount of pressure produced by the injection are carefully given.

Medical Annotations.

"Ne quid nimis."

THE PRINCE OF WALES.

AFTER an illness of more than fifty-eight days' duration, the nation will joyfully welcome the intelligence that the Prince of Wales is at last progressing, certainly and steadily, towards perfect recovery. His Royal Highness has suffered from a fever the course of which, even in its mildest form, is always watched and followed with a certain amount of anxiety as to what the morrow may bring forth. In the Prince's case the dangers have been many and grave. During those "terrible" days—to borrow an expression so fitly employed by Her Majesty—when the bronchial and other symptoms formed the more pressing indications of danger, and the bulletins were announcing "no change in the graver symptoms," all men's thoughts insensibly turned with foreboding to the recollection that his father had perished from that disease years ago, and that some of those who were attacked contemporaneously with the Prince had fallen victims to it, or were in great danger. But the anxiety of those responsible for the treatment of His Royal Highness must, at such a time, have been second only to that felt by those who were bound to the patient by family ties. Happily, all this has now passed away, and been replaced by feelings of hope and joy. The Prince is able to be removed from the room in which he had been so long confined, and daily increasing appetite and strength will, it is confidently expected, soon enable him to be removed altogether from the scene of his illness. Sir William Jenner and Dr. Gull will return to Sandringham on Saturday, the 13th, to advise as to the time of the Prince's departure for change of air and scene. It is not our province to moralise over the past, but we may venture to believe that it will not be easily forgotten by the Prince. When the public anxiety was at its height, and people of every class and denomination joined in the prayer for His Royal Highness's recovery, foreigners, at any rate, were struck with the attitude of this nation. A German physician, who had passed through the perils of the late war, and was able to estimate the affectionate popularity with which the German people regarded the members of their royal house heading a national cause, could not forbear remarking on the grandeur of the prospect before the man called upon in the future to rule over such a nation as this; and the same thought must occur again and again, we imagine, to the mind of the Prince of Wales. During recovery from a severe illness, if we are restored to the world very much in the condition of a child in regard to physical and mental feebleness, the pleasures and emotions of life come back again with nearly all their primitive force and simple freshness. It is given to some to begin life again in this way; but it is given to very few men indeed, as it is given to the Prince, to begin life afresh with the knowledge that the nation over whose destinies he is one day to preside set aside all political, religious, and other divisions, and joined heart and soul in the prayer that his life might be spared to them.

MEDICAL HONOURS.

THE general recognition of the great value of medical service, as illustrated in the case of the physicians of His Royal Highness the Prince of Wales during his recent perilous illness, will do more to gratify the profession than any particular honour which may ultimately be conferred. It may be true that very much the same skill and care and kindness are often exerted in the case of the humblest people. We have had to record instances of parish surgeons doing for paupers what these gentlemen have been doing so ably for the Heir Apparent at Sandringham, with no more temporal reward than the record of such services in the obituary which told of their death from fever caught in discharge of their duties. This is true, and the frequency of such instances is the most honourable fact connected with our profession. But, whatever may be said to the contrary, medical men are not so selfish or so jealous as to ask for a similarity of rewards in circumstances so different. It would be difficult to say what should be the reward of a good parish surgeon who brings all his skill and humanity to the rescue of a fever-stricken pauper in a crowded room. The State will one day mark such services in a just way; but it has no recognition of them now. Nevertheless, parish surgeons will be the first to admit the difference between their case and that of the Prince's advisers. These have had a duty to discharge which, in point of responsibility and anxiety, under

all the circumstances of the nation, could have no parallel in medical practice. The value of the medical treatment of the Prince, characterised by consistency with all that was sound in clinical and therapeutical medicine, may be best estimated by trying to imagine the probable result of an indiscreet or a fanciful treatment. There is another fact for which we are possibly indebted much to the physicians: the limitation of the disease, as far as Sandringham Hall is concerned, to the Prince himself. When we consider the risks of the neighbourhood, and the illustrious persons who have been about him, this is a matter for great thankfulness. Preventive medicine was on its trial. Not only have we to consider the intense arduousness and responsibility of the duties, but the sacrifices which are implied in their fulfilment. Sir William Jenner and Dr. Gull, to the great regret of the profession and the disadvantage of a loyal and acquiescent public, have been unavailable for purposes of consultation—the one for months, and the other for weeks— in consequence of their urgent Court duties. Nothing but Sir William Jenner's consummate character as a physician would save him from great personal loss and disadvantage in his professional career as a consequence of prolonged absence, not on one, but on many occasions. These are the various lights in which the merits of the advisers of the Prince are regarded by the profession, and in which doubtless they will be regarded by Her Majesty and her advisers.

We are not careful about the particular honour which would best reward such merit. There was much sound sense in the article of the leading journal on this subject, and in the letter from "F. R. S." which it called forth. Pending the institution of an established order of life peers it must be admitted that there are many objections to a peerage, though the presence of such men as Sir William Jenner or Dr. Gull could give nothing but additional wisdom to the counsels of the House of Lords, and that, too, in matters in regard to which the action of the House of Lords will already bear a favourable comparison with the Lower House. The sooner the second chamber is modified so as to receive such elements, the better for its own influence and reputation; the more so as we seem at last to be on the eve of grave and earnest sanitary legislation, in which such assistance as Sir William Jenner could give would be invaluable. A K.C.B. would not be quite an adequate honour, and it is rather suggestive of other services than medical ones. So long as England remains a monarchical and aristocratic country, a baronetcy is a most fitting return for personal services to royalty, or for eminent professional standing, in the case of those who can fitly maintain the dignity; but in Sir Wm. Jenner's case the distinction is already possessed. A new order might meet certain cases, admission to which should mark scientific services, as the K.C.B. marks political or military ones. Membership of the Privy Council, if a life peerage is impracticable, would happily combine title and influence, and be an advantage to the nation as well as an honour to the individual. There is a growing disposition to make honour personal and terminable; there is the more reason for making it real and encouraging.

PHYSIC AFLOAT.

SHIPOWNERS and shipmasters are gradually arriving at the conclusion that a great deal of the physic sent to sea in the medicine-chest for the use of the crew is adulterated and worthless. We are not prepared to say by what process they have arrived at this conclusion, but as, in consequence of letters and complaints received, the *Shipping Gazette* has thought fit to publish a leading article on the subject, we must presume that the all-powerful upholder of maritime interests thinks the state of the case very bad indeed. The advent and progress of any reform is indeed mightily strengthened when those who are interested more or less in the "let alone" system cry out for a change.

When the Merchant Shipping Act of 1867 was passing through the House of Commons, and the official scale of medicines and medical stores was being revised in accordance with its provisions, we indicated the importance of adopting some systematic plan whereby the genuineness of all drugs sent to sea in ships' medicine-chests could be clearly ascertained. The importance of such a system is obvious, and two-fold; as, in the first place, no possibility exists to the captain or crew when at sea of discovering whether good or bad articles have been put on board, and in the second place, no variety is ordered to be carried, and the list is brought down to the smallest possible compass. There are, in fact, only forty-one pharmaceutical articles, and in these are included (for some incomprehensible reason best known to the authorities at the Board of Trade), no less than three varieties of so-called disinfectants, which must, by the way, contribute very largely to the mental confusion of our amateur medical mariners. We believe that it is officially proposed to bring the contents of all ships' medicine-chests under the operation of the Adulteration of Food and Drinks Act. But our contemporary wishes to go several steps farther, and most courageously suggests that all medicines and medical stores should be treated in the same way as lime- and lemon-juice—i.e., placed in bonded warehouses, examined there by competent inspectors, and sold and delivered on board ship out of bond exclusively. We gladly indorse this proposal, or, indeed, any other workable plan that would guarantee to ship-captains a good quality of the few really useful drugs that are now taken to sea. The system of inspection would be comparatively simple, for quinine, iodide of potassium, tincture of henbane, and ether are almost the only important medicines in the list. But we take it as useless to suggest the insertion of anything in a Bill which, like the merchant shipping code, has for so many sessions struggled unsuccessfully to become an Act.

PUERPERAL MORTALITY.

DR. DUNCAN in his work on "Mortality of Childbed and Maternity Hospitals" has the following remark:—"In 1870, with our great registering machinery all at work, we cannot find out what is the mortality of childbed in London." This observation appears mainly to have arisen out of statements previously made by Dr. Barnes and Dr. M'Clintock, the latter of whom has said that in the case of a woman dying in childbed of some intercurrent disease, such as phthisis, pneumonia, dysentery, apoplexy, albuminuria, bronchitis, morbus cordis, &c., the death would have no place in the registration records of childbed mortality, but would be returned as due to the specific disease alone. Dr. M'Clintock's purpose here was to show that no comparison could fairly be made between the death-rate of a lying-in hospital, which is debited with every death occurring among its patients, and the general puerperal death-rate among women delivered at home. Dr. W. Farr has obligingly communicated to us the result of an inquiry extending over six weeks which he has recently made in London with the view of discovering whether there are any grounds for believing that "our great registering machinery" fails to reveal the full extent of puerperal mortality. Obviously an inquiry of this nature could not have been successfully prosecuted without the co-operation of the various medical attendants, whose courteous readiness to supply him with the necessary information Dr. Farr desires to acknowledge. As regards individual cases the

medical replies have been treated as strictly confidential, the general result being as follows:—In that period named there were 38 deaths by childbirth and 28 by metria, distinctly reported; additionally 18 cases, in which there was a possible supposition that they might have been connected with childbirth, were inquired into, when it turned out that 1 was so connected, that 5 were cases of women in an early stage of pregnancy or of miscarriage—cases, in fact, which would not have been admissible to a lying-in institution,—and the remainder were totally unconnected with childbirth or pregnancy. This total of 67 deaths immediately due to childbirth, when applied to the 12,814 births registered during the six weeks, shows a ratio of 1 mother dying to every 191 births. And with regard to deaths occurring in childbed from non-puerperal disease neither Dr. M'Clintock nor Dr. Duncan seems to be aware that for many years past a table of such deaths in England has been given by Dr. Farr in the Registrar-General's Annual Reports. Take the year 1869: the deaths of women resulting directly from metria and childbirth were 3283, while 786 women who died in childbed of non-puerperal diseases are separately distinguished. The effect of adding these non-puerperal deaths is to raise the mortality from 1 in 235 to 1 in 190, the latter proportion representing, what we understand Dr. Duncan to call, the mortality *in childbed*, as distinguished from the former, which is the mortality *of childbirth*.

It is not a little remarkable that clever, scientific, painstaking men so often fall into mistakes which men of less genius somehow contrive to avoid. Here, for example, in Dr. Duncan's book is a quotation from Dr. Barnes, who, referring to the mortality of childbirth as given in the Registrar-General's Report for 1856, says that, "having applied to Dr. Elkington for the puerperal statistics of Birmingham, I learn that the registrar of that town says that no one ever specifies the deaths in childbed or from puerperal fever." Yet the very report from which Dr. Barnes quotes shows that 17 deaths from childbirth and 5 from metria were registered in Birmingham in the year 1856.

THE INDIAN OVERLAND TRANSPORT SYSTEM.

AT the commencement of the overland system of transport of troops we gave a brief sketch of its intended operations, and of the fleet of splendid steamers by which the transit was to be effected. Since the opening of the Suez Canal the steamers have commonly passed through it. The Government deserve great credit for their enterprise in originating this system of relief, as well as for the effective manner in which it has been worked. The vessels are described by medical officers as admirable; the accommodation is good, and the arrangements, sanitary and otherwise, are equally so. On a late occasion we are informed that in the Red Sea, with the thermometer between decks at 95° Fahr., the air was found to be very pure. The only objection of importance that we have heard raised is probably owing to the fact that the authorities are desirous of working the system of reliefs as economically as practicable, and the vessels are consequently occasionally somewhat overcrowded. Upwards of 1300 persons were lately conveyed from England to Bombay by one of these steam-ships. Measles and small-pox were prevailing among the civil population at the port of embarkation, and a little epidemic of the former disease occurred among the children towards the end of the voyage. Happily no cases of small-pox made their appearance. Extreme care is of course exercised by the military medical men to see that the condition of vaccination is satisfactory, and that no one suffering from contagious disease is embarked. Scarlatina has not been uncommon in vessels going to India, and it is contended that the disease has been introduced into that country in this way. Of course these occurrences give rise to much trouble and anxiety, but it has not yet been found necessary to derange the programme laid down regarding the dates of departure of the steamers, otherwise a great increase of expense would have been incurred. The system offers many advantages to the soldier by facilitating the invaliding. One great objection to the overland method will be overcome by the alteration in the date of assembling of the invaliding boards. It was found that men who had suffered from dysentery, hepatic disease, fever, and other climatic affections incurred much risk in being exposed to the sudden and great changes of temperature between India and England during the winter, especially in severe seasons like those of late years. There is every reason to believe that the long sea route *vid* the Cape ought not to be set aside, for it is still the best and safest route for many invalids.

FALLACIOUS STATISTICS.

THE fallacy of statistics has become proverbial, but we were never more impressed with the truth of the assertion than upon perusing a reprint from the "Manchester Medical and Surgical Reports," entitled "The Collated Statistics of English Surgery in Public Medical Charities for 1870," by Messrs. Bradley and Whitehead. In reply to various queries included in forms of return, only fifty-nine answers were received, and many of these were the simple annual reports of the charities which give but little professional information. Unfortunately, Messrs. Bradley and Whitehead have put forth, under the above quoted title, a series of tables so as to represent the work done in these hospitals for 1870; for the fact that "fifty-nine hospitals send returns" is put at the end of each table, and any one into whose hands the pamphlet might fall would naturally conclude that the data were reliable. The character of the results will be at once appreciated when we say that the tables show amputation at the shoulder to have been performed only *five* times altogether, and but at *one* metropolitan hospital; that the table of cases of immediate dilatation of stricture gives but twenty-five cases from seven hospitals, but does *not* include a single London hospital; that the table of cases of lithotrity gives only fifteen cases, and includes but *two* London hospitals (University College being one of the absentees); and the table of ovariotomies contains but thirty-six cases, only two of the London general hospitals being included, but neither of the Hospitals for Women, where the operation is most frequently performed.

We rather gather from the introductory remarks that the compilers publish these returns for the purpose of "showing that many of our hospitals collect their yearly statistics in such a slipshod manner as to render them absolutely valueless when finished." We do not imagine that these gentlemen will care to obtain very much more of this kind of assistance in making a compilation which their own phraseology so aptly describes.

HOSPITAL SUNDAY.

THE arrival of a printed statement, showing the receipts and payments in connexion with Hospital Sunday in Liverpool last year, and particularising the several medical charities which are to participate in the collections to be made in that town on Sunday, the 14th inst., reminds us that it is now upwards of two years since the suggestion of a universal Hospital Sunday was first mooted in THE LANCET. That suggestion was thus expressed:—"The success which has attended the institution of a Hospital Sunday at Birmingham should encourage other towns to

follow so excellent an example. For our own parts, we should like to see the custom adopted universally throughout the kingdom, of setting apart one Sunday in the year for a recognition in every Christian place of worship of the claims of local medical charities." (THE LANCET, 13th November, 1869). Since that date, in Manchester, Liverpool, in the two counties of Cumberland and Westmorland, in Norwich, and other places, Hospital Sunday has been established, and in all cases with the most gratifying results. At the beginning of this new year we desire to urge forward a movement which appears to us so beneficial in its object, and in every way so worthy of public support. We have confidence that in time our original suggestion will be realised, and meanwhile we hope that, as an instalment, we may be able to record at the year's close a long list of places which have made trial of Hospital Sunday.

ROYAL COLLEGE OF PHYSICIANS.

AT the meeting of the College of Physicians held on Wednesday, the opinion of counsel on the Conjoint Examination Scheme for England was submitted. Counsel say that the scheme can be carried into effect by some slight alterations in the bye-laws of the Colleges of Physicians and Surgeons. It will be necessary that the Examiner in Surgery shall be chosen from the examiners who have been appointed under the charter of the College of Surgeons, at least in the first instance. The College of Physicians decided that all that was necessary was to call the attention of the Committee of Reference to this point, so that a proper nomination of Examiners in Surgery might be made. It is not thought at all needful to make any alteration in the scheme itself. The College, upon the report of the Committee on Yaws, decided to state to the Earl of Kimberley that the precise information necessary to form an opinion as to the desirability of enforcing active measures of isolation against persons suffering from yaws in Dominica did not exist at present, and recommended that Dr. Gavin Milroy, who is now on the spot, should be directed to gather specific data as regards the nature and contagiousness of yaws, to enable the College to come to a definite opinion on the subject.

PHOSPHORESCENCE OF MARINE ANIMALS.

PROFESSOR PANCERI, we learn from *Nature*, has been studying for some time past the phosphorescence of marine animals. He has examined Noctiluca, Beroe, Pyrosoma, Pholas, Chætopterus, and has lately published a paper "On the Phosphorescence of Pennatula." He finds in all cases that the phosphorescence is due to matter cast off by the animal; it is a property of dead separated, not of living tissues. In all cases except Noctiluca he also finds that this matter is secreted by *glands*, possibly special for this purpose, but more probably the phosphorescence is a secondary property of the secretion. Further, the secretion contains epithelial cells in a state of fatty degeneration, and it is these fatty cells, and the fat to which they give rise, that are phosphorescent. Hence the phosphorescence of marine animals is brought under the same category as the phosphorescence of decaying fish and bones. It is due to the formation in decomposition of a phosphoric hydrocarbon, or possibly of phosphuretted hydrogen itself. In Pennatula Professor Panceri has made phosphorescence the means of studying a more important physiological question —namely, the rate of transmission of an irritation. For when one extremity of a Pennatula is irritated a stream of phosphorescent light runs along the whole length of the polype colony, indicating thus by its passage the rate of transmission of the irritation. This admits of accurate measurement, and furnishes data for extending Helmholtz's and Donders' inquiries to animals so widely separated from their *Versuchs-thiere* as the Cœlenterata. It is also a proof of the thoroughness of Professor Panceri's investigation that he has made use of the spectroscope for studying the light of phosphorescence.

REGIUS PROFESSORSHIP OF PHYSIC AT CAMBRIDGE.

THIS important post is vacant by the resignation of Dr. Bond, who has occupied it since 1851. There can be no question that Dr. Paget is the proper person to be appointed to the vacancy. He has always been an earnest and able promoter of improvement in medical and natural science education at Cambridge, has contributed materially to raise the standard of the examinations to their present level, is a very able physician, an unusually well-informed and accurate man, and a singularly acute, good man of business. He is admitted on all hands to fill the office of President of the Medical Council admirably, and does honour alike to the University of Cambridge and to our profession. Though not a young man, he is full of vigour and spirit, and takes an active part in every question relating to medical education. There is no man whose opinion is more esteemed; and it may be questioned whether there is any man in the country better qualified to be at the head of the Faculty of Medicine in the Cambridge University.

PROFESSOR BENNETT.

OUR readers will regret to hear of the interruption of Dr Bennett's labours in the Edinburgh University, in consequence of ill-health. Dr. Bennett has long been in a weak state, and began the work of the session in very imperfect health, though with no diminution of devotion to his duties. At length he is obliged to desist, and we are informed will repair to Mentone as soon as may be. All who wish well to physiology and clinical teaching will desire his restoration to health. Meantime he must be comforted by the thought of good work done, and of many thousands of pupils in different parts of the world carrying out the principles of medicine which he has taught with so much ability and originality in Edinburgh for twenty-two years. Sir Alexander Grant, in the Physiology class-room on Thursday, the 4th inst., announced with much feeling the illness of Dr. Bennett, and an arrangement by which the delivery of his lectures would be continued by Dr. M'Kendrick. We have never been slow to differ from Dr. Bennett where we thought it right to do so, but we are fully alive to his merit as a teacher, especially of clinical medicine, and yield to none in a wish for his quick recovery.

GLASGOW MATERNITY HOSPITAL.

ACCORDING to the thirty-seventh annual report of the above institution, we observe that, during the past year, 1011 women participated in the benefits which this institution confers. It may be remembered that, in 1869-70, the number of the recipients of this charity was exceptionally large, being greater than in any former year. Comparing the year now ended with the one immediately preceding, there is a decrease of 159 in the total number of patients. This diminution, it may be mentioned, has occurred in both the in-door and out-door departments of the hospital; in the former there is a falling off of 24, and in the latter of 135 cases. The hospital, during the bygone year, has been very free from disease. There was little illness among the patients, and the recoveries were generally rapid and complete. Of the six deaths which occurred in

hospital, only one was occasioned by puerperal fever, whereas, among the out-door cases, five women perished from this disease. In regard to the in-door case, the usual means were at once adopted to arrest and prevent the spread of the fever, and, as the result proved, with perfect success. As in former years, the system adopted for maintaining the hospital in a salubrious state was, complete segregation, perfect cleanliness, thorough ventilation, daily fumigations with carbolic acid and chloralum, prevention of overcrowding, &c. The experience of this hospital for several years past seems to show that by the systematic and rigid observance of these measures, puerperal fever may be prevented from becoming epidemic in small lying-in hospitals.

FEMALE MEDICAL STUDENTS.

ON Monday the University Court of Edinburgh rejected the proposals which were brought before it by Miss Jex Blake and another lady in reference to the medical education of women. The resolution states that if the applicants in the present case would be content with the examination of women by the University for certificates of proficiency in medicine, instead of for University degrees, the Court believes that arrangements for accomplishing this object would fall within the scope of the powers given to them by Section 12 of the Universities (Scotland) Act. The Court would be willing to consider any such arrangements which might be submitted to them. At a meeting of the Managers of the Royal Infirmary of Edinburgh, held on the same day, a requisition was presented from 286 members of the Court of Contributors, asking the Managers to call a special meeting to reconsider the motion of Professor Masson for the admission of lady students to the infirmary. The consideration of the matter was postponed till their next meeting.

PRESENTATIONS.

WE are glad to see that Dr. Turnbull, of Huddersfield, has met with a well-deserved recognition of his valuable services to the infirmary of that town. On Friday last he was presented with a costly timepiece, a silver epergne, and a silver salver. On the timepiece was the following inscription:—"Presented to William Turnbull, Esq., M.D., by his friends and fellow townsmen, in grateful acknowledgment of fifty-five years' gratuitous service to the Huddersfield Infirmary. Christmas, 1871."

On the 4th inst. a public dinner was given at the White Hart in Abchurch-lane for the purpose of presenting a testimonial to Mr. J. W. Kay, which consisted of a Malachite clock, together with a silver tea and coffee service, claret jug, &c., and bore the following inscription.—"Presented to J. W. Kay, Esq., M.R.C.S.E. &c., by members of the medical profession and others, his neighbours and friends, in testimony of their esteem and very warm regard."

THE five licensing bodies in Ireland (Queen's University, College of Surgeons, College of Physicians, University of Dublin, and the Apothecaries' Hall) are represented by delegates from each corporation on the conference at present sitting on the subject of a conjoint examination scheme. The resolutions lately passed by the London bodies for amalgamation are still under consideration, and nothing definite has yet been done.

Apropos of the examination of the votes tendered on the 1st inst., in the election of managers to the Edinburgh Infirmary, it is understood that, though the examination will not be completed till to-day (Saturday), the balance will be in favour of the Lord Provost's majority.

WE learn by the last India mail that a few cases of cholera have appeared at Lucknow among the European troops, and that six had proved fatal. The disease has likewise appeared in the 96th Regiment, stationed at Dinapore, and caused five deaths. The medical authorities do not regard the outbreak with any feeling of alarm that it will spread to any extent, as it resembles, both as to the time of its occurrence and in its geographical area, the limited outbreak of epidemic cholera of 1866 which appeared at the Assa Durbar.

COMPLAINTS having recently been made at the Admiralty that some of the biscuit served out to ships in the Mediterranean was of inferior quality, a committee was appointed to investigate the subject, consisting of Mr. Antonio Brady, Mr. Ashby (secretary to Admiral Sir James Hope), and three paymasters of the navy. Biscuit was sent from various ships on several stations, and all the samples examined were found to be in excellent condition.

ON Friday, Jan. 5th, the little patients at the Children's Hospital, Great Ormond-street, had an entertainment, which was attended by a large number of the friends of the institution. This hospital has been opened twenty years, and during that time has received 10,000 children as in-patients and treated 200,000 as out-patients. The new building which is shortly to be erected will contain 200 beds.

ON Wednesday evening the first of a series of ophthalmoscopic demonstrations to medical practitioners was given by Mr. Brudenell Carter in the Board-room of St. George's Hospital, and from thirty to forty gentlemen were present on the occasion. A similar demonstration will be given on alternate Wednesdays during the remainder of the winter session.

DR. BALLARD, one of the inspectors of the Local Government Board, has been sent to Wolverhampton to institute an inquiry into the causes of the exceptionally high rate of mortality that has recently prevailed in that town.

AT a recent session of the Council of University College Mr. Sharpe presented the College with a sum of £4000 towards defraying the expenses of the additional buildings.

THE total of the several contributions last week to various hospitals and charitable institutions amounts to nearly £20,000.

THE Oxford Local Board advertise for a medical officer of health for their district. The salary will be £150 a year.

Public Health.

HEALTH OF LONDON AND THE LARGE TOWNS.

FROM the commencement of the present year the town of Oldham appears in the list of large towns for which the vital statistics are published in conjunction with those of London in the Registrar-General's Weekly Return. The weekly record of facts now therefore embraces eighteen of the chief cities and towns of England, with an aggregate population of 6,300,000; and when it is taken into consideration that the time available at the central office at Somerset House for the reception, analysis, and preparation for the press of these numerous facts, received from 250 different local observers, extends only from Monday morning till Tuesday evening, we think it may be confidently said that the Weekly Return is a production as creditable to the

Registrar-General's department as it is valuable to all who are interested in questions of public health. There was last week a further reduction in the aggregate mortality of the large towns, the average annual death-rate during the last four weeks having fallen successively from 34 to 31, 29, and last week to 28 per 1000. The number of deaths from small-pox was 283, of which 91 occurred in London, 37 in Norwich, 31 in Wolverhampton, 21 in Nottingham, 14 in Leeds, 42 in Sheffield, and 11 in Newcastle-upon-Tyne; Norwich and Leeds were the only two towns in which there was a noticeable increase in the deaths from this disease over the previous week's return. Measles caused 105 deaths, whereof London returned 67; scarlet fever, 62 deaths; diphtheria, 8; whooping-cough, 165, of which 92 occurred in London and 18 in Manchester; fever (without distinction of kind), 109 deaths, 40 of them in London, 13 in Liverpool, and 10 in Sunderland. It is worth notice, in reference to these large towns, that a year's accretion to their population by influx from without appears to amount to about half of that resulting from excess of births over deaths. In London the mortality last week was at the annual rate of 26 per 1000, which is lower than in any previous week since the middle of November. Small-pox was rather less fatal than in the previous week, as were also measles, scarlet fever, and typhoid fever; whooping-cough increased in fatality. The mortality from diseases of the respiratory organs, including phthisis, continued to decline.

THE PARK-LANE SEWER.

The St. George's Vestry stand self-condemned. Years ago, when the Piccadilly sewer was just beneath the surface, it was simply impossible to drain the basements of the Park-lane houses. But as soon as a lower outlet was provided, it was clearly the duty of the Vestry to take up the rotten old-fashioned sewer in Park-lane, and construct it on such a level as would effectually drain the district. But, no. The Duke of Cambridge must live in a sewage-polluted house. His servants may suffer from diarrhœa and vomiting, and his workmen may all be taken ill, before the Vestry can be roused to do anything; and then, after years of delay, they actually attempt to repair that which is irreparable, and leave the Duke of Cambridge without the possibility of draining his premises. The whole of this sewer has been notorious for its bad construction and continual foulness for many years; indeed, there is not a district in the metropolis where the sewers are so bad as in St. George's. We should like to ask why it is that the works executed by vestries are never subject to Government inspection, and that even Princes and Royal Dukes have no appeal against being compelled to live over foul and ill-constructed sewers.

SANITARY REPORTS.

Mile-end.—Dr. Corner's report disproves the assertion that a high birth-rate is necessarily accompanied by a high death-rate. The birth-rate at Mile-end is 40 per 1000, whilst the death-rate is only 21·5. Dr. Corner expresses his belief that old and forgotten drains and cesspools constitute the general origin of epidemic diseases.

Whitechapel.—Mr. Liddle's report is, as usual, full of valuable experience and practical suggestions. For example, it is well known that the most defective part of a house is very generally the bed. The poor, having once purchased one, use it for years without change. In a furnished lodging-house in Goulston-court, Whitechapel, the beds and mattresses, fifteen in number, were found to be in such a filthy condition as to be a nuisance and dangerous to health. Notices were served upon the landlords to destroy them and provide new ones, and this was done. Mr. Liddle also draws attention to the defect of the Metropolitan Building Act, which permits the re-erection of houses unfit for human habitation on old foundations. An appeal to the Metropolitan Board of Works was made in vain, and Mr. Liddle suggests that the Metropolis Building Act should be divided into a purely structural part and a sanitary part—the latter to be controlled by a general Sanitary Act applicable to the whole country. Mr. Liddle also suggests that structural improvements made at the instance of any sanitary authorities shall not be allowed to vitiate any lease. In dealing with the question of houses unfit for habitation, Mr. Liddle argues most strenuously against compensating the owners for their destruction. He says the public sympathy is more frequently manifested towards the owners than towards the poor, who by living in them are deprived of health. Besides, the vested rights of the ratepayers ought to be as much considered as the vested rights of the owners. We have no right to tax any one for the support of those sick persons whose sickness is caused by the unhealthy state of their dwellings, in order that the owner of such property may retain his usual income. In fact, houses unfit for human habitation, and which cannot be made so, cease to be property as houses, in the same way that meat unfit for human food is not property for use or sale. Mr. Liddle repeats our suggestion that open spaces should be provided as recreation grounds in densely populated districts. This space should be planted with trees, and used under the pressure of epidemics for the erection of a temporary hospital for the isolation of the sick. Mr. Liddle would make this provision compulsory on all local authorities.

Chesterfield.—Dr. Rose reports as follows:—"There are numerous cases of small-pox in Chesterfield. No provision has as yet been made for their isolation. In this respect, as in other sanitary matters, there has been culpable negligence on the part of the Corporation and Board of Guardians. The River Rother is still polluted by the sewage of the town, the drainage is very imperfect, and there are no ventilating shafts, while many of the houses are utterly unfit for human habitation. There are no baths or wash-houses. There is no medical officer of health. The superintendent of police is sanitary inspector, but, with every desire to do his duty, I fear his work is very imperfectly performed. The combination of sanitary inspector and detective is certainly not a happy one. Being engaged in a large dispensary practice, I have daily evidence that there is a vast amount of preventable disease in the town."

THE REMOVAL TO FEVER HOSPITALS OF PATIENTS WHO HAVE NOT FEVER.

The attention of the Metropolitan Asylums Managers has been drawn to the very large number of persons who have been sent to the Homerton Fever Hospital who have been labouring under no contagious forms of disease. Dr. Collie has written a report excusing these mistakes, and proposing that a separation ward shall be set apart for such cases. He says, with justice, that it is often impossible to diagnose typhus and typhoid fevers at a very early stage, particularly when the patient is dirty and his surroundings do not permit of a very careful examination. He says that they have so often deplored the delay which has taken place in sending patients to the hospital, that it is far better that many should be sent there unnecessarily than that any patient's life should be endangered by being left too long in the wretched home. Nevertheless, we cannot but think that more caution is required, and that district medical officers are bound to examine their patients very carefully before subjecting them to the inevitable dangers of a fever hospital. No less than six persons have been recently sent from one union, none of whom had any infectious disease whatever, and it is perfectly incomprehensible how phthisis, dyspepsia, and diphtheria could have been mistaken for fever if only the most reasonable investigation had been made.

SANITARY STATE OF SCARBOROUGH.

It is to be regretted that the inhabitants of Scarborough, not content with ignoring the irrefutable evidence that H.R.H. the Prince of Wales, the Earl of Chesterfield, and Mr. Sykes's butler all took their illness at the same time and place, have gone out of their way to put the blame on Sandringham, and to quibble about the trifling errors which were introduced into our report, and which we were the first to rectify. But, worse than this, they have set out on a course of justification of the most delusive character, by issuing a series of questions to the lodging-house keepers, asking them the number of visitors they have received, the number of deaths, and the cause of them. They are also requested to state the number of waterclosets and privies, and are innocently asked to give any other information likely to be of service to the Local Board. All this looks vastly like an attempt at special pleading. If the Board had really wished to get at the true state of the town, it would have appointed a medical officer and an independent Sanitary Committee to make these inquiries for

themselves, and to inspect not only the houses in which visitors are received, but those foci of contagion which constitute the real danger. To suppose that the proprietors of lodging-houses will report any defects in their water-closets, drains, and privies is simply absurd, for even supposing they had the necessary knowledge, which they have not, it is unreasonable to expect them to report anything but good of their own establishments. The Town Council had far better deal boldly with the question, for the public will understand the tendency to evasion which too often prevails amongst the representatives of lodging-house keepers, and the only way of restoring confidence is to give the public the guarantee that steps will be taken not to excuse but to remove the stigma which attaches to the town. They must also please to remember that they have to satisfy the medical profession, for whilst there is a high death-rate and repeated epidemics it is not likely that physicians will recommend Scarborough as a satisfactory health resort.

SMALL-POX.

Cases of small-pox occurring on board coasting vessels continue to be reported almost as frequently as ever, and it appears that when such cases arise no systematic effort is made to disinfect the quarters of the crew, where, in all probability, the sick man has been lying for several days. No one who has not visited and inspected the miserable forecastles of coasting vessels can have any idea of the urgent necessity that exists for some rigid sanitary supervision of these floating habitations. We may indeed fairly place to the credit of such craft the perpetuation of small-pox in various waterside towns, particularly in such places as Plymouth, where coasters have communication with the town daily and hourly. Any Bill relating to public health that may emanate from the Local Government Board during the forthcoming session will be incomplete unless it provides for some direct sanitary control over the thousands who live afloat, and disseminate disease in the ports and harbours of Great Britain.

The Town Council of Yeovil having ordered a house-to-house inspection, with a view to remove nuisances and secure the general vaccination of the people, the inspectors now report that they have visited 654 houses, and that they found no less than 133 unvaccinated children, ranging from the ages of three months to twelve years, most of them residing in the poorest parts of the town. The committee are convinced that had strict attention been paid to vaccination, Yeovil would not have experienced the anxiety and distress which now prevail. We venture to ask when the town was last visited by an inspector, and how comes it that the Board of Guardians have been in the habit of paying the vaccination fees without the cases being duly certified? How is that returns cannot be got from the public vaccinator? and how is that in so small a population so many children have been left unvaccinated?

TYPHOID FEVER.

During the last thirteen weeks of 1870 there were registered in London 556 deaths by continued fevers, of which 79 were returned as resulting from "typhus," 352 from "enteric fever," and 125 from "simple continued fever." Now, if we turn to the list of diseases published in the Weekly Return for the large towns, we find no such distinction made as is given above for London, all deaths from the three kinds of continued fever being simply lumped together under the head of "fever." It seems a pity that this should be so, and we strongly urge upon the Registrar-General that he should endeavour to get his local reporters to distinguish typhus and typhoid from simple continued fever in their returns to him. The difficulties in the way of this distinction, which, if made, would be of great advantage for sanitary purposes, can hardly be insuperable, and we should like to see the attempt made at any rate.

THE REMOVAL OF DYING PATIENTS.

It is greatly to be regretted that the coroner refuses to hold inquests on the bodies of patients who have been received into the Homerton Fever and Small-pox Hospitals in a dying state. *Primâ facie* it cannot be doubted that the deaths of these unfortunate people have been accelerated by the removal, and it is obviously the duty of the coroner to hold an inquest whenever there is doubt upon the point. His refusal is the more extraordinary as the Homerton Committee of Management have been unable to get the practice put an end to by the Local Government Board, and have appealed to the coroner to help them.

TYPHOID FEVER AND SEWER GASES.

The Metropolitan Board have requested the metropolitan vestries to send in a return of the number of men and boys employed in the sewers, and the number who have suffered from typhoid fever. The result will be interesting, but it may be also very delusive. The main sewers of London are for the most part tolerably ventilated, and the men get acclimatised. Mere returns of this sort are not to be relied upon, and it would have been far more satisfactory if the investigation had been remitted to a small commission of scientific men, who would have carefully weighed all the circumstances.

SWIMMING-BATHS FOR LONDON.

It is to be hoped that the death of Mrs. Browne will not deprive London of the munificent gift which she contemplated making in the erection at her own cost of swimming-baths somewhere in Hyde-park and Regent's-park. She has died intestate, and without known relatives, and her property, said to be worth £10,000 a year, will revert to the Crown. It is to be hoped that Her Majesty will direct that the well-known wishes of the deceased shall be carried out, notwithstanding the absence of a will.

The local board of *West Ham* have requested authority to borrow £200,000 for the purchase of a farm on which to utilise the sewage of the district. Mr. Rawlinson observed that at Leamington, Birmingham, and Northampton thousands had been spent in experiments, and, after all, irrigation had to be resorted to; and at West Ham they must adopt some means of getting rid of their sewage otherwise than by passing it into the River Lea.

It was some time ago stipulated by the Home Secretary that the sewers of *West Derby* should be adequately ventilated. Mr. Rawlinson, C.B., now writes to say that there should be an opening into the roadway at not less than every hundred yards, and, as there are at present only 75 such openings in eleven miles of sewers, 123 more are required.

Upwards of 100 cases of enteric fever have recently occurred at the village of *Mevagissey*, near St. Austell, in Cornwall, and the parochial medical officer has appealed to the guardians for additional remuneration. An official communication on the subject has been forwarded to the Local Government Board. It appears that Mevagissey is a large fishing village, and has been for some time in a most filthy state, having little or no drainage of any kind.

INVISIBLE RESPIRATOR AND MOUTH-PROTECTOR.

THE inventor of this ingenious contrivance is Mr. Nightingale, dentist, of Sackville-street. The respirator consists of a single piece of metal—it can be made of gold if necessary,—which accurately fits against the teeth inside the lips, and prevents the ingress of air through the mouth, the wearer being compelled to breathe through the nostrils. There are two small slits, one on either side of the plate at its lower part, which permit the saliva to flow away from between the teeth. These same valves, Mr. Nightingale states, allow the air to be exhaled through them, although, by the action of the under lip upon them, the air is prevented passing into the mouth. This contrivance for excluding cold air from the mouth is not unsightly, like ordinary mouth-protectors, but is indeed invisible. To those who use such things, to guard against damp, cold, or foggy air, the protector will be found to be very well suited.

WE learn that the foot-and-mouth disease is still prevalent in the county of Bucks, there being at present sixty farms infected, nine fresh farms having been declared infected during the past week. The disease also appears to be gaining ground in Northamptonshire.

Correspondence.

"Audi alteram partem."

THE MEDICAL DECLARATION RESPECTING ALCOHOL.

To the Editor of THE LANCET.

SIR,—Dr. Moxon and some others take exception to the declaration respecting alcohol as not being logical, since it would seem to them to imply an attack by certain members of the profession upon others for rashness in the administration of stimulants and, at the same time, a condemnation of themselves. The memorial may perhaps bear the dissection which Dr. Moxon has practised upon it, but, taken as a whole, its meaning to me, when I signed it, was obvious. I took it most certainly as a confession on the part of our profession that we, as a body, had been too heedless in recommending stimulants to persons who are only too ready to accept our advice, but, of course, in signing it we did not all feel sinners alike. Some, no doubt, felt pangs of conscience, and promised themselves to be more careful for the future, whilst the less humble, although confessing for the whole body, really signed for their neighbours. I do not see anything illogical in this. The origin of the movement is simple. It is clearly owing to the fact that the subject of intemperance and all the immoralities and diseases arising therefrom has become one of the questions of the day. The Legislature has thought it worthy of consideration, and the daily journals bring it ever before our notice. Under these circumstances we, as a profession, seeing the evils of intemperance and knowing the influence we exert upon the community, make a kind of confession that we have been too remiss in forgetting our duties in matters so serious, and for the future we intend to be more careful with our advice. There will of course be persons who demur and deny that medical men could possibly, by inadvertence, be instrumental in promoting any kind of vice; but in the mean time a large majority of the profession is alive to its responsibilities, and issues the declaration, whose meaning to me is obvious, as I hope its fruits will also be.

I might state, as my own opinion, that if we are open to censure, our failing is rather on the negative side in not sufficiently endeavouring to correct the habits of those whose own propensities have brought their evil habit upon them.

I am, Sir, yours, &c.,

Grosvenor-street, Jan. 6th, 1872. SAMUEL WILKS.

THE CHOLERA IN RUSSIA.

To the Editor of THE LANCET.

SIR,—Perhaps you may deem the enclosed cholera data worth stereotyping in your columns. Together with the valuable and extensive reports of the epidemic already given in 1871 in your journal, these Russian data will contribute to the *zonal study of disease*—a branch of epidemiology which, though hitherto too much overlooked, may, it is reasonably thought, during the present prevailing cycle of great epidemics, yield rich and good returns.

I am, Sir, yours truly,

Royal Institution, Jan. 8th, 1872. WILLIAM D. MICHELL.

Cholera in Northern Latitudes in 1871.

Archangel, N. Lat. 64° 32′ 1″.—Showed itself in its epidemic form in the beginning of July, spreading widely and fatally through the province.

At *Onega*, Nov. 1st, 1871.—Reported to be at this date diminishing, after sweeping away whole households; but in some contiguous districts to this still prevailing.

Siberia.

Tomsk Government.—A letter from Achinsk, dated Oct. 19th-31st, 1871, states that it has extensively prevailed through the towns and villages of this district, being generally conveyed by transports of convicts by steamers on the Obi river. It is further reported that, whereas in former years it only penetrated as far as the Government of Tobolsk, in this year (1871) it has extended as far east as the Government of Tomsk, Western Siberia.

Yenesei Government (adjoining Government of Tomsk).—In a letter from Yeniseisk (town), dated Nov. 8th–20th, 1871, it is said "that the cholera epidemic appeared in Western Siberia late in the season, and, owing to the cool state of the temperature, it did not carry off many of the people."

DAMPNESS AT GLOUCESTER HOUSE, PICCADILLY.

To the Editor of THE LANCET.

SIR,—Several questions having been put to me upon the preceding subject, it may be stated, as a matter of fact, that I reported to the Nuisances Removal Committee of St. George's, Hanover-square, on September 21st, and again on October 19th, 1869, that land-springs were detected in the basement, and a pipe drain was substituted for a brick one, with a receiver for the springs. No further complaint has reached me officially since that period.

Your obedient servant,

C. J. B. ALDIS, M.D.,

Medical Officer of Health, St. George's, Hanover-square.

Chester-square, Jan. 10th, 1872.

"ISCHÆMIA PAPILLÆ."

To the Editor of THE LANCET.

SIR,—In the very kind notice of my book on "Medical Ophthalmoscopy," your reviewer objects to my using the term "ischæmia papillæ" as an equivalent for "Stauungspapilla," on the ground of its previous application to another condition. I would say that I may have been the first to apply the term in one of my early papers, and I would add that Alfred Graefe's case was one of ischæmia retinæ; still I grant the force of the objection, and had felt it some time before the publication of my book. In a future edition I shall withdraw the term, and I now write in support of your reviewer's proposition that my English equivalent "choked disc" should be our accepted term for this condition. I am, Sir, yours, &c.,

Leeds, Jan. 9th, 1872. T. CLIFFORD ALLBUTT.

MEDICAL EVIDENCE AT CORONERS' INQUESTS.

To the Editor of THE LANCET.

SIR,—Mr. Edwin Bush and Dr. Wybrants attended the Sessions at Taunton on Monday, the 1st inst. All the charges were dismissed by the Court, without calling upon the coroner for any defence. I trust for the future that Mr. Bush will be a wiser and happier man.

I am, Sir, your obedient servant,

GEORGE C. KNIGHT, Surgeon, &c.

Rookham House, Frome, January 8th, 1872.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

THE very great diminution in the mortality of this town during the winter months is a very gratifying change. In one week there have been 140 fewer deaths than in the corresponding week of last year. This is a vast improvement, particularly when it is remembered that there was no epidemic this time twelvemonths to account for the then high mortality. The large proportion of deaths from diseases of the respiratory organs continues very noticeable.

The appointment of a public analyst still trembles in the balance. It was agreed to by the Health Committee; it was negatived by the Town Council; and now it is again before the Health Committee. At their last meeting, Dr. Trench, who is strongly in favour of the appointment, made the startling statement that certain wells from which the town was supplied had been at various times shut up on account of the impurity of the water they supplied, and he

gave the cholera year, 1866, as an illustration when this had to be done.

The honorary medical appointments at the different hospitals continue to attract considerable attention on account of the elasticity of the laws which regulate them; certainly they are not according to the laws of the Medes and Persians, which changed not. We had scarcely ceased to wonder at the anomalies connected with the Northern Hospital, where, after the appointment of the last honorary officer, a law was added rendering a certain period of private practice necessary to make a candidate eligible—a law which they now have to abrogate before they can fill up the very first vacancies occurring under it—when the Royal Infirmary, or rather the active spirits on its committee, must needs proceed to alter its laws. Some twenty years ago, when the appointments were for life at this institution, and one of its staff had held his sinecure for forty-three years, it was felt that such lengthened service was not good for the infirmary, or fair to the profession, and a law was passed limiting the term of service to twenty-one years, and under this law most of its present staff hold their offices. Shortly afterwards the two other hospitals of the town altered their laws, and reduced the term of service to ten years; but when that period had nearly expired the gentlemen affected by these laws felt it a grievance to hold office for a shorter period than their compeers at the infirmary, and, getting the very complaisant committees of their respective hospitals to endorse their views, the laws were again altered and assimilated to those of the infirmary, and up to the present time twenty-one years' service was the period for all. But at the annual meeting of the trustees of the Royal Infirmary, held on Monday last, the trustees were asked to rescind the law limiting the term of service of the honorary officers to twenty-one years, and substitute for it a paragraph permitting them to hold office till they attain the age of sixty-five years. This was carried by a majority of ten, fifteen voting for it, and five against it. This alteration, which it is notorious has been proposed in the interest of one of the staff whose tenure of office expires in three or four years, has been much canvassed in medical circles and among the public, and has been generally condemned as an ill-advised step, and yet, through the apathy of those who have spoken most strongly against it, it has been allowed to pass.

What is the next probable step? The two other hospitals will find it advisable to amend their law No. 7, and make the same period of service hold good for them, and so the old state of things will be brought about, which at the time caused so just and unanimous an outcry from the profession and the public.

Liverpool, Jan. 8th, 1872.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

WITH the commencement of the new year we are again agitated with the question of the medical education of women, with which your readers are already acquainted.

The deaths in this city from all causes for the week ending 30th December amounted to 153. Of this number 13 were cases from the country. The return, however, is equivalent to an annual mortality of 37 per 1000. The mortality of the corresponding week in 1870 was 103. Of the present mortality 11 deaths were due to scarlet fever and 35 to small-pox. This is the largest number of deaths from small-pox in one week which has occurred during the present epidemic. During the preceding weeks the numbers have ranged from 20. Tolerably satisfactory arrangements as to hospital accommodation have now been made; the building (Watson's Hospital) which was purchased for the site of the new infirmary—having been still kept up—has been converted into a small-pox hospital. The hospital first provided contained under 20 beds, but in that now used there is ample space. From the rapidity with which the disease ceased to be sporadic and became epidemic, some difficulty was experienced in furnishing the wards with bedsteads, &c. Now there is accommodation for upwards of 150 patients. City patients are admitted to the hospital, whilst the infirmary receives the cases of small-pox from the country and neighbourhood of the city.

Since the opening of Watson's Hospital for small-pox patients on 5th December, 244 cases were received during the month. Of these, on December 31st, 50 had been dismissed and 31 had died, and the remainder (163) were still under treatment.

The two Societies present a healthy appearance. At the Medico-Chirurgical Dr. Handyside has been raised to the presidential chair.

At the College of Physicians, the question of a conjoint Examining Board has been under consideration, and I understand the feeling of the College is favourable as to a conjoint examination so far as the first professional examination is concerned, but the matter is still being deliberated upon.

Edinburgh, Jan. 1872.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

AT a recent meeting of the Société de Chirurgie a very interesting discussion took place on the subject of tubercular disease of the testicles, the orators not being agreed as to the proper method of treating the disease, and especially as to the advisability of taking away the testes. M. Chassaignac took a decidedly conservative view of the subject. He stated as his opinion that whenever there was a mere abscess, particularly an encysted one, of the testicle, amputation should not be performed. Whenever the general condition of the patient suggested the idea of amputation, an exploring puncture should first be made, and if pus were withdrawn, the best course would be to make an incision, and drain when the incision alone did not suffice. Mutilation of the testicle ought never to be performed. M. Demarquay took an opposite view. He limited M. Chassaignac's proceeding to cases of purulent fistulæ, when only suppuration existed. But where tubercles were in existence, he took an opposite course. He would not use draining in cases of manifold fistulæ. The patient was harassed by the numerous appliances; he could neither work nor walk; and, finally, the surgeon had to take away the testicle at the patient's urgent request. Yet he would confine the operation of amputation to cases of infiltrated tubercle of the epididymis and testicle, in which the disease acts on the whole system. M. Chassaignac remarked that even in cases of manifold fistulæ a single draining-tube would suffice. M. Tillaux sided with M. Chassaignac, and would only operate in cases of general wasting of the patient. M. Giraldès said that, on considering the morbid pathology of tubercular testicle, he considered draining to be insufficient. He had never had a fatal case of amputated testicle. M. Lefort said that he also had never had any fatal case. He thought it was wrong to proscribe amputation in cases of tubercular testicle unattended with tubercles in the lungs. M. Chassaignac wound up the discussion by asking his colleagues to bring forward their various statistics in connexion with the sequelæ of amputated testicle.

The following changes have just taken place among the medical officers of the Paris hospitals:—M. Empis goes to La Charité, Lorain and Desnos to La Pitié, Guyot and Siredey to Lariboisière, Raynaud, Féréal, and Cadet de Gassicourt to Saint Antoine, Dumontpallier to Lourcine, and Constantin Paul to Bicêtre.

The number of inscriptions entered this year at the Secondary School of Bordeaux amounts to 285, whereas in the preceding year it did not exceed from 120 to 140; and this shows favourably in regard to the future prospects of the various provincial Faculties which it is contemplated to establish. The number of students registered is now 270, out of which 115 are learning medicine and 26 pharmacy. The first-year students are 115 in number, including medicine and pharmacy.

No determination has as yet been taken by the Government in respect to the transfer of the Strasburg Faculty. It is very probable that this Faculty, I mean as a whole, will not be transferred elsewhere, and that the Government will content itself with appointing the Strasburg Professors to the new Faculties which are in contemplation.

Paris, Dec. 31st, 1871.

Obituary.

DR. JAMES BAKER.

ON Christmas day last there passed away, at Cambridge-house, Tottenham, in the person of an old and genuine practitioner, one of the most useful members of the profession. Dr. Baker was, with Mr. Wakley, the real author of the Act of Parliament by which the present fees for coroners' inquests are secured to the profession. It was the above-named gentleman who presented the petition to the House of Commons in 1836 which induced the late Mr. Wakley to bring in the Bill which was afterwards passed and known as the Medical Witnesses Act. Dr. Baker laboured for two years, and spent much money, in getting up and furthering the end of the petition, which was signed by upwards of 800 members of the profession. He was highly esteemed by his fellow-parishioners of St. Leonard, Shoreditch, amongst whom he lived seventy years, and received from their hands many marks of respect. At a dinner at the London Tavern he was presented with a valuable service of plate by the vestry, with a unanimous vote of thanks, and by the vicar with a splendid copy of the Book of Common Prayer, for his devotion to the interests of the parish, and impartiality, after serving the office of vestryman many years and that of churchwarden for two years. He was for many years a deacon of Whitefield's Tabernacle, Finsbury.

DR. COWDELL.

CHARLES COWDELL took his M.B. (University College) in 1846, M.D. London in 1852; and died on the 15th December, 1871, in his fifty-seventh year. He was well known to the medical scientific world as the originator of the theory of the fungoid origin of cholera, which he published in 1848 in his book entitled "A Disquisition on Pestilential Cholera, being an attempt to explain its phenomena, nature, cause, prevention, and treatment, by reference to an extrinsic fungous origin" (published by Samuel Highley). He also contributed, amongst other things, to periodical medical literature, "Cases of Traumatic Tetanus successfully treated," papers on "Epidemic Sore-throat," and "Cases of Neuralgia successfully treated by Hypodermic Anodyne Injection," which he was one of the first to introduce. He had for upwards of twenty-two years filled the post of Physician to the Dorset County Hospital.

He was taken ill with an attack of suppressed gout some six weeks since, but did not at first think it serious. His strength, however, failed so fast that Mr. George Curme and Mr. Alfred Emson were called in, and Dr. George Johnson, of London, came down to consult with them. Though at one time he appeared to rally, and his family entertained hopes of his recovery, inflammation of the lungs and jaundice set in, and exhausted his small remaining strength until Friday morning, the 15th December, when, without a struggle or a sound, he passed away.

He was beloved and esteemed by his medical brethren and fellow-townsmen, both for his professional skill and his unblemished life of Christian piety. He was interred on Wednesday, Dec. 20th, in the cemetery at Dorchester.

MR. H. M. GRACE.

AT Downend, near Bristol, on the 23rd ult., died Mr. Henry Mills Grace, after a few days' illness, from pneumonia. Mr. Grace, who passed L.S.A. in 1829, and M.R.C.S. in 1830, was in his sixty-fourth year. In addition to his local practice he held the post of surgeon to the Royal Gloucestershire Hussars, of which regiment he was the oldest officer, having received his appointment in 1841 from the father of the present Duke of Beaufort. Greatly esteemed as a surgeon and general practitioner, his time was so distributed as to admit of his engaging at intervals in various of the field sports, in which he was a master. Few better horsemen than he ever rode to cover; while as a cricketer he would have been famous but for the overshadowing reputation enjoyed in that sport by his two sons. He was an especial favourite with the Prince of Wales, and has received telegrams regularly during his Royal Highness's illness at Sandringham. His three elder sons he trained to his own profession, and they are now in good practice in Bristol and Gloucestershire. His two younger sons, W. G. and F. G. Grace, renowned all the world over as cricketers, are preparing for a medical career also. He will be succeeded in his *clientèle* by Mr. Stretton, who was on the eve of marrying his eldest daughter when Mr. Grace died, and who will continue the practice in some degree for the benefit of his widow.

ROBERT ST. JOHN MAYNE, L.R.C.S.I., L.K.Q.C.P.I.

WE record with regret the death of this gentleman, which took place on the 16th December, at his residence, Rutland-square, Dublin, from small-pox, at the early age of twenty-eight. Mr. Mayne was surgeon to the Meath Hospital, and contracted the disease in that institution whilst in the discharge of his professional duties. He succumbed after a few days' illness, the attack being a most malignant one. Mr. Mayne was also a lecturer on anatomy in the Carmichael School of Medicine, and had he lived, would undoubtedly, with the position he held, and the abilities he possessed, have risen high in the profession. He leaves a widow and three children to deplore his untimely death.

JOHN CHARLES HUNTER, M.R.C.S., L.R.C.P.

MR. HUNTER, of Wilton-place, Belgrave-square, was born August the 20th, 1799, and died at his residence, December 19th, where he had been for above forty years in practice; during the early period of which he held, among other appointments, that of inspector of vaccinators at the National Vaccine Establishment, and for some time was resident medical attendant to the Earl Dudley. He died of a lingering and painful illness, emphysema of the lungs and heart disease. He became M.R.C.S. Eng. and L.S.A., in 1821, also L.R.C.P. Lond. in 1863. He was author of the sixty-third volume of the "Family Library."

ROYAL COLLEGE OF SURGEONS.

THE quarterly meeting of the Council was held on Thursday, the 11th inst., when the ordinary routine business was transacted.

Mr. Erichsen's motion, to the effect that vacancies in professorships or lectureships should be advertised, and candidates invited to apply for vacancies, was carried as proposed.

Sir James Paget's motion—"That it is desirable, before proceeding to any nomination of members for election to the Fellowship, under the 5th clause of the Charter of 1852, that the Council should determine the conditions under which the election should take place"—was carried, but considerable discussion arose on a proposal to restrict the honour to men of science not in practice. Eventually it was determined to postpone the nomination of candidates for a twelvemonth, and refer the whole matter to a sub-committee for report.

The President announced that, in consequence of the serious illness of Mr. Partridge, it would be necessary to fill up the vacancy in the Court of Examiners caused by Mr. Cock's retirement without delay. Sir J. Paget, Mr. Prescott Hewett, and Mr. Charles Hawkins announced their intention of not becoming candidates for the office. Mr. Simon gave notice of a motion requiring the Examinerships to be advertised in the same terms as the motion relating to the Professorships.

Medical News.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 4th:—

Butler, William John, Delamere-crescent.
Thompson, Francis Henry, Tenbury, Worcestershire.

As Assistant in Compounding and Dispensing Medicines:—

Hockenhull, Philip Hall, Macclesfield.

FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW. At a meeting of the President and Fellows on the 1st inst., the following gentleman was duly admitted a Fellow:—

Bazan, Horace, L.R.C.P. Edin., L.F.P.S.G., L.S.A. Lond., Welbeck-street, Cavendish-square.

COLLEGE OF PHYSICIANS, IRELAND. — At examinations held on Dec. 11th, 12th, 13th, and 14th, the following gentlemen obtained the licences in Medicine and Midwifery:—

MEDICINE. — William Tracy Budds, Thomas De Renzy, William John Fleetwood, Henry Heyward, Edmond Allen Lucas, Richard William O'Donnell, John Prendergast, Robert Hamilton Reed, Charles Henry Smith, Edward Thomas, Edmund Wellington Wrightson.

MIDWIFERY. — William Tracy Budds, Thomas De Renzy, William John Fleetwood, Henry Heyward, Edmond Allen Lucas, Richard William O'Donnell, Robt. Hamilton Reed, Chas. Henry Smith, Edward Thomas, William Henry White.

DR. FREDERICK T. HULKE has been placed on the Commission of the Peace for Deal.—Mr. D. P. Maurice, F.R.C.S., was qualified as a County Magistrate for Wiltshire at the last Quarter Sessions held at Devizes.

AT the Hospital for Women, Soho-square, the patients were lately treated to an entertainment in the board-room. Dr. Protheroe Smith delivered a short address, after which numerous presents were distributed.

PAUPERISM.—The total number of paupers in the metropolis last week was 122,647, of whom 35,412 were in workhouses and 87,235 received out-door relief. Compared with the corresponding week in 1871, 1870, and 1869, these figures show a decrease of 27,729, 31,913, and 22,659 respectively.

HAMPSTEAD SMALL-POX HOSPITAL.—The Metropolitan Asylums Board on Saturday passed a resolution expressing satisfaction at the result of the inquiry instituted by the Local Government Board into the conduct of the Hampstead Small-pox Hospital, and absolving the committee of management from all blame in connexion with the matter.

BREAD MADE WITH SEA-WATER.—M. Rabuteau, after considering the effects of sea-water in small or large doses on the economy, thinks that bread made with it might be taken with advantage in dyspepsia, phthisis, and scrofula. The bread is extremely pleasant to the taste. M. Rabuteau cites many authorities, especially seafaring men, to show how useful this peculiar bread has been.

GLASGOW INFIRMARY admitted during last year 6014 patients, being 248 fewer than in 1870, owing to the subsidence of the relapsing fever epidemic. The daily average of patients in the hospital was 482, as against 513 in 1870. The total expenditure was £18,802 6s. 10d., the extraordinary revenue including a donation of £5000 from Mr. John Freeland, of Nice.

THE HARVEIAN SOCIETY.—On the 4th inst. this Society held its annual meeting, which was well attended both by members and visitors. The rooms were tastefully supplied with pictures, photographs, and prints, which proved of great interest. Messrs. Pratt, Mayer and Meltzer, Mr. Ferguson, and others, exhibited various surgical instruments, among which were several novelties. Mr. Van Abbott showed many useful articles of food for invalids, and Mr. Steward's microscopes were exhibited to great advantage. Mr. Power created great interest in showing ophthalmoscopic examinations upon a rabbit; and among the prints were particularly conspicuous Hebra's drawings of diseases of the skin (New Sydenham Society), kindly lent by Mr. Curgenven. After going through the routine business, the President, Mr. de Méric, read an address, in which he gave a sketch of the Society's labours during the session, passed a warm eulogium on the efficiency of the officers and the excellent spirit in which the discussions had been carried on, and made some remarks on medical education and medical practice. The following is a list of the names of gentlemen elected as officers of the Society for the year 1872:—President: Dr. Handfield Jones. Vice-Presidents: Mr. Berkeley Hill, Mr. William Hickman, Mr. Curgenven, and Dr. Broadbent. Treasurer: Dr. Fuller. Hon. Secretaries: Mr. H. C. Lawrence and Mr. George Eastes. Council: Dr. J. H. Davis, Mr. T. Carr Jackson, Dr. Thomas Morton, Mr. Arthur H. Nowell, Mr. W. B. Owen, Mr. Edwin Etty Sass, Dr. J. G. Westmacott, Mr. F. B. White, Mr. G. B. Baker, Mr. Thos. Rayner, Mr. Thos. Thorman, and Mr. E. P. Young.

MEDICAL SENATORS IN ITALY.—Profs. Stanislaus, Cannizzaro and Charles Maggiorani, of the University of Rome, and Prof. Louis Porta, of the University of Pavia, have been raised to the dignity of Senators.

THE UNIVERSITY OF DORPAT.—Hitherto the chairs of this university were filled by professors who had gained a name in Germany; and this seat of learning, though under Russian dominion, was extremely prosperous, and maintained its Teutonic origin. But the system of Russianising annexed provinces has at last reached Dorpat. The University is being transferred to Wilna, where, of course, the Russian language will be exclusively used.

Medical Appointments.

ARBUCKLE, J. H., M.B., C.M., has been appointed Assistant Resident House-Surgeon to the East Dispensary, Liverpool, vice G. Stone, L.R.C.P.Ed., L.R.C.S.Ed., resigned.

BARNES, T. H., M.D., has been appointed Medical Officer for the Sandy District of the Biggleswade Union, Bedfordshire.

BAYLIFFE, A. M., M.R.C.S.E., has been elected Medical Officer and Public Vaccinator for District No. 11 of the Axbridge Union, Somersetshire, vice J. C. Williams, M.R.C.S.E., deceased.

BRAYE, H. H., M.R.C.S.E., has been appointed Medical Officer for District No. 4 of the Whitechapel Union, vice E. Richardson, M.D., M.R.C.S.E., deceased.

COOKE, E. J., M.B., L.R.C.S.I., L.M., has been appointed Resident Medical Officer and Secretary to the Newark Hospital and Dispensary, vice F. H. Appleby, M.R.C.S.E., resigned.

FORSTER, T. B., M.D., has been elected Surgeon to the "Pride of Devon" Lodge of Odd Fellows, Manchester Unity, Plymouth, vice Jago, resigned.

HOWIE, J. M., M.B., C.M., has been appointed Surgeon to the Albert Tontine Society, Liverpool, vice E. Adam, L.K.Q.C.P.I., M.R.C.S.E., resigned.

HUGHES, E., M.D., L.F.P. & S.Glas., has been appointed Medical Officer to the West Derby Union Workhouse, vice Reid, resigned.

JONES, H. M., M.D., F.R.C.S.I., has been appointed Extraordinary Physician to the Cork Fever Hospital and House of Recovery, vice F. A. Purcell, M.D., resigned.

LEDGARD, W. E., L.R.C.P.Ed., M.R.C.S.E., has been elected Medical Officer for District No. 3 of the Ripon Union, vice E. Smith, M.B., C.M., resigned.

M'KELLAR, P. H. M., M.B., C.M., has been appointed Resident Medical Superintendent of the Stockwell Fever Infirmary, upon a probation of three months.

MILLER, W., M.R.C.S.E., has been appointed Surgeon to the Independent Order of Mechanics, Liverpool, vice C. Hill, M.D., L.R.C.S.Ed.

NIND, P. P., M.R.C.S.E., has been elected Medical Officer of Health and Public Analyst for Torquay.

PRINGLE, J. M., M.R.C.S.E., has been appointed Medical Officer for the Whittingham District of the Rothbury Union, Northumberland, vice J. W. Todd, M.R.C.S.E., resigned.

ROBERTS, J. D., M.R.C.S.E., has been appointed Surgeon for the Blackfriars District of the Royal South London Dispensary, vice H. J. Thorp, M.R.C.S.E., resigned.

ROBINSON, A., L.R.C.P.Ed., M.R.C.S.E., has been elected Medical Officer and Public Vaccinator for the Nuneaton District of the Nuneaton Union, vice F. B. Eaton, L.R.C.P.Ed., L.F.P. & S. Glas., M.R.C.S.E., deceased.

ROSSITER, D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Dunham District of the East Retford Union, Notts, vice R. M. Willan, M.R.C.S.E., resigned.

RYAN, L. J., M.D., has been appointed Medical Attendant to the Royal Irish Constabulary, Oulart, Co. Wexford, vice M. J. Sheridan, M.D., L.R.C.S.I., resigned.

SCHUSTER, E., L.R.C.P.Ed., L.R.C.S.Ed., has been elected Medical Officer and Public Vaccinator for the newly formed Barrow District of the Ulverstone Union, Lancashire.

SPEIRS, J., L.F.P. & S. Glas., has been appointed Medical Officer and Public Vaccinator for the Parish of Old Kilpatrick, Dumbartonshire, vice M. Mason, M.D., deceased.

STANLEY, W. E. S., L.R.C.P.Ed., L.R.C.S.Ed., has been elected Medical Officer for District No. 1 of the Sudbury Union, Suffolk, vice J. J. Ellis, L.R.C.S.Ed., deceased.

WEST, J. G. U., L.R.C.P.L., M.R.C.S.E., has been appointed Resident Medical Officer to the North Staffordshire Infirmary, Hartshill, vice J. T. Leigh, L.R.C.S.Ed., resigned.

Births, Marriages, and Deaths.

BIRTHS.

BATEMAN.—On the 7th inst., at Compton-terrace, Highbury, the wife of H. Bateman, F.R.C.S.E., of a daughter.

BLYTH.—On the 27th ult., at Worcester, the wife of A. W. Blyth, M.R.C.S., L.S.A., A.K.C., of a son.

DALY.—On the 10th inst., at Queen's-road, Dalston, the wife of Frederick H. Daly, M.D., of a daughter.

FARR.—On the 8th inst., at West-square, St. George's-road, the wife of Geo. F. Farr, L.R.C.P.Ed., of a daughter.

PARSONS.—On the 4th inst., at Huskisson-street, Liverpool, the wife of W. D. Parsons, M.R.C.S.E., of a daughter.

THORNE.—On the 8th inst., at Harcourt-terrace, South Kensington, the wife of W. Bezly Thorne, M.R.C.S., L.R.C.P., of a daughter.

WATSON.—On the 2nd inst., at Little Huthwaite, Wortley, near Sheffield, the wife of A. M. Watson, M.D., of a daughter.

MARRIAGES.

AMBROSE—M'MURDO.—On the 5th ult., at St. James's, Delhi, J. D. Ambrose, M.D., Assistant-Surgeon, 58th Regiment, to Katharine Emily, daughter of Major-General W. M. S. M'Murdo, C.B., Commanding the Rawul-Pindee Division.

BARRIE—FINDLAY.—On the 10th inst., at Gilmore-place, Edinburgh, Andrew David Barrie, M.B., C.M., L.R.C.S., of Dumfries, to Emily, relict of Thos. Wm. Finlay, Esq., of D'Urban, Natal, and youngest daughter of the late John Stiven, Esq., of Glasgow.

BRUCE—BEECH.—On the 2nd inst., at Bartholomley Parish Church, Dr. James Bruce, of Kidsgrove, to Margaret, daughter of the late Jas. Beech, Esq.

DEATHS.

BESEMERES.—On the 29th ult., Wm. Besemeres, M.D., F.R.C.S.E., of Dole, near Aberystwith, formerly of the Old Kent-road.

BUTLER.—On the 28th ult., C. Butler, M.R.C.S.E., of Ingatestone, formerly of Romford, aged 78.

EDWARDS.—On the 8th inst., J. Edwards, M.R.C.S.E., of Uppingham, Rutlandshire, aged 54.

MALLOCH.—On the 1st inst., J. Malloch, L.R.C.S.Ed., Assistant-Surgeon R.N. (half-pay), of Kirriemuir, Forfarshire, aged 83.

MINGAYE.—On the 6th inst., at Brompton-road, C. P. Mingaye, M.R.C.S.E., formerly of Dedham, aged 48.

O'KEEFFE.—On the 3rd inst., at Widnes, Grace, the wife of Dr. O'Keeffe, and youngest daughter of the late Wm. Parke, Esq., of Preston.

POPHAM.—On the 20th of Oct., at Gawler, South Australia (after a long and serious illness), William Home Popham, M.D., M.R.C.S.E., L.S.A., eldest son of the late Robt. Honner Popham, Esq., of Bandon, Ireland, aged 52.

SAUNDERS.—On the 5th inst., at the Devon County Asylum, the infant son of George Symes Saunders, M.B., aged 5 months.

Medical Diary of the Week.

Monday, Jan. 15.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8 P.M. Dr. Chapman, "On the Pathology and Treatment of Neuralgia and its kindred Disorders."

Tuesday, Jan. 16.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. W. Rutherford, "On the Circulatory and Nervous Systems."
PATHOLOGICAL SOCIETY OF LONDON.—8 P.M. The following Specimens will be exhibited:—Tumour of the Testicle (report); Disease of Supra-Renal Capsules (report); Malignant Growths of Femur; Sequel of a Case of Blood-Cyst; Renal Calculi of Cystic Oxide; Salivary Calculus; Excavation of Lung, with Arrest of the Disease; Complete Destruction of one Lung by Non-tubercular Excavation; Embolism of the Middle Cerebral Artery, associated with Aneurism of the Aorta; Fibro-Cystic Tumour of Lower Jaw; &c. &c.

Wednesday, Jan. 17.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Jan. 18.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Odling, "On the Chemistry of Alkalies and Alkali Manufacture."
HARVEIAN SOCIETY OF LONDON.—8 P.M. Mr. Fairlie Clarke, "On Syphilis as it affects the Tongue."

Friday, Jan. 19.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—9 P.M. Prof. Odling, "On the new metal Indium."

Saturday, Jan. 20.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Wm. B. Donné, "On the Theatre in Shakespeare's Time."
ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—7½ P.M.

Notes, Short Comments, and Answers to Correspondents.

TEMPERAMENTAL THERAPEUTICS.

"ALL beliefs are temperamental," says a contemporary writer. Without entirely endorsing this dictum, we may yet recognise in it a substratum of truth with regard to one portion of the domain of medicine—therapeutics. *Ex gratiâ:* the active or the expectant method of treating disease will be favoured or repudiated by a medical practitioner not alone, or perhaps chiefly, as the result of the teaching he has received or of his experience *per se*, but largely in accordance with the constitution of his own mind—his mental predisposition. That a surgeon, again, will be prepossessed in favour of the heroic or the conservative style of surgery according as his temperament—using that word in its broader meaning—is bold and fearless or timid and hesitating, hardly admits of a doubt. In other words, it may perhaps be stated that, within certain limits, a medical man's satisfaction and, to a large extent, his success in treating disease will correspond to the degree in which he is able to harmonise the rules he has learnt with his own conceptions of what is right and proper. Attention to some such considerations as these, which are capable of much amplification, will, we believe, help some members of the profession who appear to be greatly perplexed by the difficulty of explaining the diversity of testimony that exists, and always has existed, regarding the merits of different and sometimes opposite lines of treatment, or in respect of the medicinal value of drugs.

X.—There are no lectures at the College of Surgeons addressed to or intended for students. Our correspondent could get what he wants at any one of the metropolitan medical schools, and will find their times and fees in the Students' Number of THE LANCET.

Rothbury.—The Poor-law Board or the Poor-law Auditor.

MEDICAL BARONETCIES.

To the Editor of THE LANCET.

SIR,—I cordially agree with you in the remark you were pleased to make on the subject of Medical Baronetcies, to the effect that such honours were much too scantily bestowed on members of the medical profession. What is the most fitting mode in which Sir Wm. Jenner's recent services to the Prince of Wales should be rewarded I am not prepared to say; but I suggest that his presence in the Privy Council might afford most material aid in matters of sanitary administration, which are constantly, and probably will be much more frequently, before my Lords in the future. That Dr. Gull should be made a Baronet no one questions in or out of the profession. But I still think with you that not only is the present a fitting time for giving the profession its due by the bestowal of further honours upon representative men of the profession—men who have had no opportunity of rendering Royalty a personal service, but have reached the highest eminence in the profession by a long and honourable course spent in the service of that profession, and who command its confidence. I fully share your feelings in regard to the eminent men you name, and especially in the case of the present distinguished President of the College of Physicians. To have been elected by his brethren to the presidential chair of almost every medical institution in London and also to the leading Societies, to have been a most able President of the General Medical Council in critical times, to have represented the medical profession in the Royal Society more than once, and to occupy a distinguished position in the Senate of the University of London, is full evidence of the great esteem in which Dr. Burrows is held. This same gentleman has, moreover, shown what a dignified character may be given to the status of a hospital physician. I think that an honour conferred upon such a representative man would reflect itself peculiarly upon the profession.

I am, Sir, yours obediently,
January, 1872. F.R.C.P.

THE PARIS FACULTY AND NON-OFFICIAL TUITION.

IT would appear that a great change is on the eve of taking place as to the latitude given to private enterprise in imparting medical knowledge. The Faculty have been consulted by the Minister of Public Instruction on the opportunity of giving countenance to non-official tuition, and the Committee of Professors appointed to express the opinion of the Faculty on the subject are disposed to advise widely liberal measures.

An Army Surgeon.—The present strength of the department is 998, exclusive of the Director-General: 9 Inspectors-General of Hospitals, 33 Deputy-Inspectors, 340 Surgeons and Surgeons-Major, and 616 Assistant-Surgeons at home and in India and the Colonies.

A. B. L.—There is no book specially devoted to the subject; but it will be found included in the consideration of diseases of the urinary organs in Dr. Roberts's, Dr. Hassall's, Dr. Beale's, and other works.

UNIVERSITY COLLEGE HOSPITAL.

To the Editor of THE LANCET.

SIR,—The Report of "THE LANCET Commissioners," who lately visited this hospital, though mainly favourable to the nursing and sanitary arrangements of the institution, condemned the situation of the urinal in the main corridor, and remarked upon the offensive smell arising from this source at the time of the visit of the Commissioners. I, therefore, beg to state that the removal of this urinal and the adjacent watercloset had been resolved upon some weeks ago, and has been delayed only in order to obtain suitable plans for this and other proposed alterations.

I remain, Sir, your obedient servant,
J. DAVIES THOMAS, M.D., F.R.C.S.,
University College Hospital, Jan. 8th, 1872. Resident Medical Officer.

THE DUTIES OF PROPERTY.

OWNERS of houses have been too apt to think that their only duty was to receive rents. Even now it is difficult to make them understand that it is their duty to make property habitable with safety. A few days ago, Mr. Henry Wise, the owner of Ebury House, Ebury-square—let in tenements, inhabited by no less than fifty-three persons, principally Irish, with the drains in completely obstructed condition, no dustbins, the water-supply defective, and none in the waterclosets,—was summoned under the Nuisances Removal Act by the vestry of St. George's, Hanover-square. Dr. Aldis testified to the horrible and dangerous state of things. Mr. Woolrych ordered that in fourteen days the place should be set in thorough order, and until then that it be uninhabited if necessary; the drains were to be reconstructed, the water properly laid on, and everything done to abate the nuisance. Dr. Aldis said the nuisance could be abated without turning the people out.

Carcinoma.—The experience of condurango at Middlesex Hospital went to show that it was as futile to cure cancer as any of the other remedies from time to time vaunted as specifics for this disease.

THE ACTION OF CARBOLIC ACID AND THE DISINFECTION OF AIR.

To the Editor of THE LANCET.

SIR,—There are certain statements in the communication of Dr. John Dougall, "On Chromic Acid as an Antiseptic, Disinfectant, &c, more especially as compared with Carbolic Acid," contained in THE LANCET of the 16th December, which are opposed to my own conclusions, and certain others which I find it difficult to understand. I trust that the importance of the subject will gain for me space for brief criticism and inquiry.

"Carbolic acid," Dr. Dougall says, "seems to act an antiseptic solely by coagulating albumen." I have endeavoured carefully to consider the evidence on this question, and have come to a conclusion exactly opposed to that of Dr. Dougall. ("Antiseptic System," pp. 11 to 14, and p. 28.) I have shown that the white-cloud appearance in albuminous solutions to which carbolic acid has been added is often really no albuminous precipitate at all, but is caused by refractile globules of carbolic acid in a state of fine subdivision. Dr. Dougall does not challenge the evidence on which I base this statement. I have also said that the fact is established by the careful observations of competent witnesses that albuminous solutions are antiseptted when carbolic acid exists in them in too feeble proportion to cause any precipitate whatever. (Ch. Lemaire, "De l'Acide Phénique," 2nd edit., p. 154; Crookes, "Report to Cattle Plague Commissioners," Reprint, p. 27; Husemann, "Toxicologische Studien über Carbolsäure und Kreosot," *Deutsche Klinik*, Sept. 2nd, 1871, p. 313.) Dr. Dougall says that I ignore the fact "that, in general, chemical precipitates of albumen are soluble in water, specially carbolico-albuminoid precipitates." I have tried hard to understand this sentence, and have asked the aid of an able chemical friend, without success. A precipitate is such because it is not soluble in the menstruum employed. To say that carbolico-albuminoid precipitates from aqueous solutions are soluble in water, is to say that they are not precipitates at all. I must still adhere to one out of many other arguments: that if carbolic acid acts as an antiseptic in virtue of its property of coagulating albumen, agents which have a greater power than it in inducing such coagulation should, *a fortiori*, be more powerful antiseptics. It is abundantly proved that this is not so; therefore I hold that carbolic acid does not produce its effects as an antiseptic solely by coagulating albumen; and in this opinion I am joined by those who, like Lemaire and Crookes, have the most deeply studied the question.

A most important point discussed in Dr. Dougall's paper relates to the efficiency or otherwise of disinfectants diffused in air, and his arguments and observations deserve careful consideration. Dr. Dougall says that a carbolised atmosphere cannot act antiseptically; that the amount of carbolic acid vapour which could be tolerated in the air of a hospital ward would be entirely inadequate to operate as a disinfectant. My experiments showed that *carbolised atmospheres* were efficient to prevent putrefaction and the growth of mildew ("Antiseptic System," chap. xii.); and, moreover, that they were more efficient than atmospheres impregnated with chloride of lime or sulphurous acid. If, therefore, the deductions from my experiments can be fairly accepted, and Dr. Dougall's inference is correct, then *all* the usual means of disinfection of air must be alike futile.

Let us consider the evidence on which Dr. Dougall bases his opinion. He first adduces Dr. A. Smith's observations, to the effect that pieces of fresh meat suspended in bottles containing heavy oil of tar and MacDougall's powder respectively became putrid in seven days. This result can scarcely be wondered at when it is considered that tar oil is a crude product, weak in carbolic acid, and possessing little or no other constituent which can be called a volatile disinfectant, and that MacDougall's powder contains its carbolic acid in the form of carbolate of lime, and that only in the proportion of about one-third of its bulk. Dr. Dougall next cites an experiment of his own, in which a piece of beef and three phials containing beef-juice, urine, and infusion of hay respectively, were suspended in a gallon bottle containing 1 lb. of carbolic acid, yet putrefaction took place in all cases just as quickly as if the putrescent materials had been in ordinary air. But I was surprised to read the conditions of Dr. Dougall's experiment, especially that the bottle was "kept open." A gallon bottle in which three phials and a piece of beef have been introduced must have a tolerably large orifice permitting the entry and exit of atmospheric currents sufficient, surely, to annul the action of any volatile antiseptic. The quantity of carbolic acid, whether a pound or an ounce, would be quite immaterial, provided there were sufficient to cover the surface of the bottom of the bottle. I must, therefore, demur to Dr. Dougall's statement that his materials suspended six inches from the carbolic acid surface in a bottle open to the air were, in any sense of the word, exposed to a "most concentrated" carbolised atmosphere.

The object of the diffusion of a volatile antiseptic in air is the destruction of disease-germs. To accept Dr. Dougall's experiment as crucial, we must admit that disease-germs are as abundant and as highly organised as the germs or spores that determine putrefactions and the growth of fungi. Furthermore, if by any volatile antiseptic we destroy or render inert a part of the active germs of disease, are we justified in omitting the means altogether? Lemaire prevented mildew by placing carbolic acid in a saucer in a cupboard infested by it; Trautmann declared that "decomposition cells" were greatly decreased in number in air which contained carbolic acid. I do not pretend to say that the efficacy of volatile antiseptics in the air is proved beyond a doubt. I believe that carefully contrived experiments would be of great value in the elucidation of the question; but I contend that Dr. Dougall has not even established a *prima facie* case against their employment. I would submit these few points for consideration: Carbolic acid is readily taken up by the air, so that 159·44 cubic inches of air at 60° F. contain one grain of the antiseptic. Air thus carbolised (currents excluded) entirely annuls putrefaction and fungoid manifestation on the surface of putrescible fluids. Such carbolised air is more permanently efficacious than air charged with the fumes of chloride of lime or sulphurous acid, and equally so with air containing iodine, creasote, or phosphorus. Such carbolised air can be breathed by mammifers with perfect impunity. There is a reasonable amount of evidence derived from practical experience that the air of places can be preserved from noxious inhalations, and, at least in some degree, from the power of transmitting infectious disease when it is commingled with a volatile antiseptic.

I am, Sir, your obedient servant,

Duncan-terrace, Jan. 1st, 1872. A. ERNEST SANSOM.

A HOAX ON SIR JAMES PAGET.

WE are sorry to learn that an extraordinary hoax was perpetrated upon Sir James Paget last Sunday. A young man called at his residence, stating that his services were urgently required by the Baroness de Rothschild at Mentmore, near Leighton. Sir James, accompanied by the man, immediately proceeded to Mentmore, when he found that he had been duped, there being no one ill in the house. The young man was given into custody, and is supposed to be insane.

Mr. W. Demaure might consult some standard work on Physiology regarding the points he has submitted to us. Considering the age of the individual to whom he alludes, we can readily understand the statement made.

AN UNUSUAL OBSTETRIC CASE.

To the Editor of THE LANCET.

SIR,—Ever ready to give publicity to the medical profession through the medium of your valuable journal, I beg to submit the following case of obstetrics for insertion.

I was called to a female, supposed to be in labour, on Thursday, Dec. 28th, 1871. On examination, I found her not in labour. Friday passed over, also Saturday, until about 7 P.M., when symptoms of labour appeared. The pains continued all night. I saw her again at 9 o'clock on Sunday morning, when parturition took place, and a female child was born alive at 10.30 A.M. I waited with her an hour and a half. Visited her again. No pains all day, nor yet on Monday; yet she could distinctly feel another child. I deemed it expedient to call in my medical friend, Mr. Hooper, and he, on a further examination, stated that the os uteri was so rigid and contracted that he could with but great difficulty pass a finger, and only by perseverance dilated the os uteri. Shortly afterwards the membranes were ruptured, and then a hand presentation, with hour-glass contraction. Pushing the hand further into the pelvis, I was enabled to get hold of a foot. Pains then commenced for the second child. After the expulsion, a second hour-glass contraction, entirely enclosing the placenta, which was not removed for half an hour, and then with great difficulty, adhesion having taken place. The twin females are both alive and doing well, likewise the mother.

Now, Sir, I have been in practice upwards of fifty years, and during that period delivered upwards of 7500 cases, a most extensive practice, but never met with so protracted a case. Yours obediently,

Alvey-street, Walworth, January, 1872. WM. THOMPSON.

Dr. Carey, (Guernsey.)—We have carefully perused the letter and the enclosed copies of correspondence. We cannot pretend to offer a legal opinion on the case; for that our correspondent had better consult his solicitor; but the course taken by the agent certainly does not seem to us to have been the proper one. It would appear by his own showing that he preferred his claim to a fee from one party upon the ground that he could not fairly expect it from the other. Of course, however, if the business arrangements required more than ordinary care, or involved unusual trouble or responsibility, our correspondent ought to recognise these as just grounds for basing a claim for extra remuneration.

THE communications of *Mr. W. R. Cornish* (Madras) have been received, and he will accept our thanks for the same. He will perceive that the volume alluded to has been already noticed. We regret that the great length of the letter referred to has hitherto precluded its insertion, otherwise it would have appeared.

SCARLATINA IN LYING-IN WOMEN.

To the Editor of THE LANCET.

SIR,—*Apropos* of the letters in your impressions of Dec. 16th and 30th, I write to mention the following circumstances, from which it is evident that the monthly nurse conveyed to the patient the disease of which she died—a fact which tends to prove the desirableness of a stricter surveillance on the part both of patients and medical men of the character and antecedents of these women, many of whom combine the function of monthly with that of sick nurse.

The facts referred to are as follows:—A patient of mine, who has been recently confined, had engaged her ordinary monthly nurse to attend her; but as she did not receive a visit from her as usual, was led to suspect something wrong. Inquiry amongst the neighbours of the woman, who lives in a low part of Peckham, elicited the fact that two of her grandchildren, who had lived in her house, and whom she had nursed in their illness, had died of scarlatina—a circumstance verified by inspection of the death register. It has been further ascertained that this woman left the children dead at home, and went straight to the house of a lady at Tulse Hill, whom she had engaged to nurse, and who was confined on the day of her arrival. This lady sickened of scarlatina, which was followed by pyæmia, and died on the thirty-first day after her confinement, as proved by a copy of the register which I have in my possession.

The whole of the facts have been elicited and are verified by Mr. T. Alton Letts, of New Cross, who has inspected the register of the children's deaths.

I am, Sir, your obedient servant,

Blackheath, Jan. 6th, 1872. J. HARMAR SMITH.

DENGUE.

A SHORT time ago we intimated that the garrison of Aden had suffered from an epidemic of dengue—the scarlatina rheumatica, or break-bone fever of some authors. It was supposed to have been introduced into Aden by traders from the African coast. It appears that the same disease, according to the *Indian Medical Gazette* for December, was prevailing very extensively in Calcutta and its neighbourhood. Young and old were equally affected. The same disease, under the appellation of "Red Fever," was very common in Andalusia and other provinces of Spain during 1865-7, and a pamphlet recently published in Madrid by Dr. Poggio puts us in possession of his observations regarding it. There seems to be little doubt that dengue is contagious. Heat and moisture are said to favour its development. The eruption occurs from the second to the fourth day, and the disease is attended, as well as followed, by great sense of weakness and prostration, with muscular and neuralgic pains. It is rarely fatal.

THE EATON FUND.

THE following subscriptions have been received at THE LANCET Office on behalf of the above:—

THE LANCET	£5	0	0	Mr. E. Saunders, George-st.	£1	1	0
Messrs. Griffin & Son, Bank-				Dr. Rowe, Margate	1	1	0
bury	1	1	0	Mrs. Rowe, ditto	1	1	0
Dr. Fraser, Fairfax-road ...	1	1	0	Mr. F. D. Mocatta, Con-			
Mr. H. Smith, Wimpole-st.	2	2	0	naught-place	1	0	0

White.—The yeast, or the ferment of beer, has a place in the Pharmacopœia. It is employed in the form of poultices for indolent ulcers. It has been used internally for boils, and in certain low states of the system, with foul tongue and fetor of the evacuations. The uses of ale and porter, produced by the fermentation of an infusion of malt and hops, are too numerous and familiar to need description here. But they are not recognised in the Pharmacopœia. See Pereira's Materia Medica.

X. had better consult some surgeon.

Lunatic.—A private medical man cannot legally take charge of the case. We should recommend our correspondent not to disregard the advice of the authorities. If the sum cannot be paid, some cheaper asylum might be found.

THE MEDICAL DIRECTORY FOR 1872.

To the Editor of THE LANCET.

SIR,—In reply to your correspondents, "M.D. Heidelberg" and "Anti-Humbug," we beg to state—

1. That our "notice" issued in September last had reference only to "foreign medical degrees" obtained since the passing of the Medical Act. Had we intended to omit the L.M. of Edin. and Dub., the "notice" would have been differently worded.

2. The foreign medical degrees which *are* inserted have been recognised by the Medical Council, and duly registered. We are bound to accept the decision of the only body which has the right to exercise "censorship" in these matters. If any member of the profession obtained a foreign medical degree before the passing of the Medical Act, and has not registered the same, he alone is responsible for its omission from our "Directory."

3. For the information respecting appointments the gentlemen to whose names they are appended must be held responsible. Doubtless in a few instances there are evidences of bad taste; but we believe that the profession generally would regret the omission of such indications of the "status" of their brethren.

4. The addenda of "Phys." in the Local List is given only to those who, possessing a medical degree or a diploma from one of the Colleges of Physicians, have expressed their desire that such addenda should be inserted after their names in the list.

We repudiate the charge of unfairness and inconsistency, and beg to repeat that which is already expressed in our preface—viz., that we believe the course adopted with regard to the foreign medical degrees will further the best interests of the profession.

We are, Sir, your obedient servants,

THE EDITORS OF THE MEDICAL DIRECTORY.

New Burlington-street, Jan. 6th, 1872.

To the Editor of THE LANCET.

SIR,—When the editors of the Medical Directory in September last announced their intention of excluding from their forthcoming edition all qualifications which could not be registered under the Medical Act of 1858, I little thought that they intended to commit the injustice of, first, allowing that proceeding to have a retrospective action; and secondly, refusing to insert an honourable foreign title *in addition* to a registerable British qualification. On reading the preface to this year's edition, in which they more fully explain their motives for the course which they have adopted, I fail to see that they have acted in any other way than illogically and inconsistently. Surely a foreign degree from a first-rate German University or that of M.D. Paris, which is only obtainable after six searching examinations, might be added to an English M.R.C.S. or L.S.A., if B.A. and B.Sc. Paris be deemed worthy of insertion. Again, "Interne des Hôpitaux de Paris," a title corresponding with that of House-Physician or House-Surgeon in this country, but of greater honour, inasmuch as it can only be acquired after severe competitive examinations, is admitted into the Directory; but if its possessor be fortunate enough to qualify himself for and obtain the higher degree of M.D., this latter title is rejected.

I submit that by these proceedings the editors are not only acting inconsistently and unjustly, but are ceasing to be "the only reliable source of information on matters pertaining to the status of medical men." The public and the profession require something more than a Medical Register as their guide. Let the editors expunge from their pages the numbers of worthless and some even absurd titles which encumber them. That some of those titles are false I am able to affirm from an intimate acquaintance with the Faculty of Medicine of Paris during many years past. For my part I have preferred that my name, which has had a place in the Directory for several years, should be erased from it altogether rather than it should appear minus the qualification of which one has most reason to be proud. How the title of M.D. Paris is prized throughout the world is evidenced by the fact that a great number of foreigners from all parts of the globe resort to the French capital, ambitious of obtaining its valuable degree, and of profiting by the magnificent advantages which its school offers for medical study. Few foreigners come to England for a diploma, notwithstanding the brilliant character of the degree of the University of London. Perhaps that is not to be wondered at, when we consider in what a state of laxity and confusion medical matters are in this country.

I am, Sir, yours obediently,

WM. H. JONES, M.D. Paris, M.R.C.S.E.

Brook-street, Jan. 8th, 1872.

To the Editor of THE LANCET.

SIR,—After reading the correspondence in your journal with reference to the insertion of foreign degrees in the Medical Directory, I think I have got an "idea" which might in a measure solve the difficulty. "M.D. Heidelberg" very justly complains of the numerous cases where the rule laid down by the editors of the Directory is not adhered to. As I take it, the thing wanted is to exclude "quacks" whose only qualification is a purchased degree, representing, perhaps, neither examination nor any course of medical study. How would it answer to make the possession of a British qualification the *sine qua non* of *registration*, and insert foreign degrees as merely *honorary titles*, on the same principle as the D.C.L., LL.D., &c. &c., which are conferred without examination? Again, it might be referred to a committee of medical men to settle in each individual case whether or no the diploma be genuine, or a specimen of those worthless productions which are so common. If such an ordeal had to be passed, the holder of a purchased degree would be rather shy of submitting it to inspection. This would weed our improper M.D.s from the Directory. The difficulty with many seems to be that these degrees allow the possessors of them to assume the title of "Doctor" so easily, while the British M.D. has had very hard work to obtain the same privilege. Whatever regulations may be made, the general public understand "Doctor" to mean their medical attendant, whether M.D., physician, surgeon, apothecary, or licentiate; and even though a man may not assume the title not justly his, it will really be forced upon him in this way. I think we can never hope to mend this matter. It is only medical men themselves that really know the difference between, say, M.D. of London and L.R.C.P., or any other similar qualification. It seems to my mind a question really of courtesy and good taste.

Your obedient servant,

Melrose, Jan. 6th, 1872. A. B. MUNRO.

To the Editor of THE LANCET.

SIR,—In reply to "Anti-Humbug," I beg to observe that for the same reason that a licentiate of an Apothecaries' Company is an *apothecary*, and a licentiate of a College of Surgeons is a *surgeon*, so is a licentiate of a College of Physicians a *physician*. The editors of the Medical Directory are quite right in styling a man a "Physician" who holds a L.R.C.P. diploma, no matter where he gets it from, or how he obtains it; just as a man is called "*Doctor*" who holds the degree of M.D., no matter whether it comes from London or Erlangen, Catania, Montreal, &c. Moreover, Sir Roundell Palmer and Mr. Denman have decided that licentiates of the London College are entitled to call themselves *Physicians* (*vide* THE LANCET, 23rd April, 1870, page 601). At the same time the grade of a licentiate is lower than that of a fellow or member. "Anti-Humbug" says that, "according to the popular acceptation of the word in England, a *physician* is not supposed to practise surgery or pharmacy." Just so; but popular notions must not be allowed to deprive men of their lawful titles. As a Guy's student I passed the College of Physicians of London in 1864. In the first half I was examined in Anatomy, Physiology, Chemistry, Materia Medica; and in the second half in Medicine, *Surgery*, and Midwifery; and I received a diploma, in which it is stated that "I, Thomas Watson ..... &c., have granted to Josiah Court, who has satisfied the College of his proficiency in the science and practice of Medicine, *Surgery*, and Midwifery, our licence under the said Charter to practise *physic* so long as he shall continue to obey the statutes," &c. &c. Now, if a man is not a *physician* who practises physic, what in the name of common sense is he?

Your obedient servant,

JOSIAH COURT, L.R.C.P. Lond.

Staveley, near Chesterfield, Jan. 9th, 1872.

To the Editor of THE LANCET.

SIR,—Allow me, through the medium of your journal, to point out to "M.D. Heidelberg," that if he will compare the Medical Directory with the Medical Register, he will find that they closely correspond. From this the inference to be drawn is that the degrees omitted in Messrs. Churchill's Medical Directory are "bogus degrees." The degree from "Gonville" happens to be obtained from the University of Cambridge, Gonville being one of the Colleges of that University. Your obedient servant,

Stroud-green-road, Jan. 9th, 1872. H. A. H.

THE ANTI-VACCINATION CRAZE AND ITS FRUITS.

A LITTLE light has been thrown on the reason of the occurrence of many cases of small-pox at New Brompton—a matter to which we incidentally referred last week. On Tuesday a man was summoned, for about the sixth time, before the Rochester magistrates, charged with neglecting to have his child vaccinated. The sentence was a fine of £1 and costs, or a month's imprisonment. Mr. Buchanan, who prosecuted, said that the man always went to prison, and his family was maintained by the Anti-Vaccination Society. New Brompton, we believe, is included within the district in which the *quasi*-martyr resides.

Mr. Mackenzie, (Old Calabar.)—Has our correspondent consulted the index for that year? We will give any communications with which we may be favoured our consideration; but we cannot promise their insertion. The more concisely an article is written, the greater is the chance of its appearance.

A Student, M.—It is not probable that the bowels in health are ever perfectly free from flatus. A certain quantity of air is swallowed with the food, and certain gases are liberated during the digestion both of animal and vegetable food. — 2. The starch that is found in the brain is not true starch, but amyloid substance, and is thought to be developed during the disintegration either of the albuminous compounds about to form, or that actually have formed, the cerebral substance.

Clinical Society.—The remarks at meetings dated Nov. 10th and Dec. 9th, erroneously ascribed to Dr. Bäumler, were made by Dr. Althaus.

HOSPITAL ACCOMMODATION FOR SMALL-POX.

DR. CORNER, the medical officer of health for Mile-end, has made an application to the Committee of the Homerton Small-pox Hospital for the admission of cases in a respectable sphere of life, not having proper means of isolation in their own homes. In Mile-end the epidemic has entirely subsided amongst the pauper class, whilst it is extending amongst persons in a better position, who are quite able and willing to pay for their maintenance. Dr. Corner states that it is now necessary that the sufferer should be certified as a pauper; but perhaps he does not know that several parishes have been in the habit of sending this class of patients to the hospitals of the Asylums Board. The relieving officer gives the order of admission, and takes a guarantee for the payment of the expenses. It is a mere quibble to say such patients would be pauperised.

M.D., L.R.C.P.—Parkes's Practical Hygiene, Dr. Hassall's works (published by Longmans), and Sutton's Volumetric Analysis will probably supply our correspondent's requirements.

FEVER POISONS HAVE NO SMELL.

To the Editor of THE LANCET.

SIR,—I have read your article on Drainage, and quite endorse all you have said on that subject; and I think, as your views will surely get into the public prints, a great good would be done if you were shortly to reiterate them. But you seem to me to have overlooked one great and most important point—viz., the great difference there is between stinks and poisons. Stinks may or may not be organic, and may damage health; but fever poisons are organic, have a life, a growth, will produce their like, and, if planted in favourable soil, grow, run their course, live their natural life, die out, and leaving seed behind them, reproduce themselves; and, above all, have no smell. A boy who has never had scarlatina gets into a railway carriage in which an infected person has travelled; he smells nothing, yet takes the disease. A well-attended person suffering from that disease or any other, has a scentless room; yet an in-comer predispesed, though not smelling anything, takes the illness. The scabs from small-pox and cow-pox have no smell, yet they will inoculate. The fact is, though as yet we cannot see the germ, our microscopes and means not being at present sufficiently powerful, yet common sense and reasoning from the habits of these poisons tell us, I think plainly, that they are organic and inodorous. And, if so, what should we do besides draining and ventilating? Why, decompose, disinfect, and destroy the vitality of the germ, never allowing it, if once cast into the closet, to get again into the atmosphere alive. Chloride of lime, carbolic acid, and last, not least, though cheapest, solution of sulphate of iron, which last, I believe, gives out much ozone, and is as good a destroyer of germs as anything I know. Let one of these be used constantly in all closets, sinks, and drains. These poisons do not necessarily require a human body for their growth; they will grow on a dunghill or in a cesspool, wherever there is a favourable nidus, like fungi.

In the nomenclature of diseases drawn up by the College of Physicians, influenza, whooping-cough, and diphtheria are classified as "diseases of the respiratory system." This is not as it should be. They are specific infectious fevers as much as typhus or small-pox; they run a certain course, and are communicable from one infected person to another. I say again they are specific fevers, and I believe that ventilation and disinfection will do much to get rid of them.

I am, Sir, yours obediently,

Slough, January, 1872. W. U. BUÉN.

Mr. E. J. Syson is wrong in assuming that we desired to attack him in any way, as any dispassionate reader of our remarks must allow. We regretted to see him taking up a position which we are quite satisfied is indefensible, and we said as much, and no more. Of course it is open to our correspondent to forward us any communication upon the subject which he may feel disposed to send, and we can promise him that it will be considered solely upon its merits. We hope shortly to discuss the statistical issue which has been raised; but prefer to do so simply upon the merits of the case, and not in connexion with a dispute which in its most recent form savours very strongly of personality. Our correspondent will excuse us if we say that, as he himself appears to have selected *The Times* for his battle-ground with the Registrar-General, it seems most fitting that the contest should be carried on in that journal.

Mr. Edwin Worts.—The coroner's duty is somewhat difficult in such circumstances. There is much to be said in favour of calling in the practitioner actually attending the patient at the time of death. This is, indeed, the general rule, and we do not think the coroner can be blamed for acting as he did.

ON THE POSSIBLE PROPHYLACTIC ACTION OF QUININE IN MALARIOUS FEVERS.

To the Editor of THE LANCET.

SIR,—In a paper contributed to the *Centralblatt* by Dr. Manassim, he states that the size of the red corpuscles of the blood is diminished, in all their dimensions, in cases of septicæmia, and also in cases where an animal has been immersed in an atmosphere of carbonic acid gas; and that in both cases the body temperature of the animal is augmented. In fevers, then, where we have blood-poison and increase of temperature of the body, we may naturally assume, from Dr. Manassim's researches, that the red corpuscles are *diminished* in size. Now, any drugs that could be shown to produce an *augmentation* in the size of the red corpuscles of the blood may reasonably be expected to act as antidotes or remedies in blood-poison disease, and the German professor has demonstrated that we have such drugs in sulphate of quinine and alcohol, as well as oxygen gas, all of which increase the dimension of the red corpuscles in all their diameters. From Dr. Manassim's researches I am induced to suggest the possible effect of quinine, as a prophylactic against malarious fevers, being due to the drug counteracting the action of the blood-poison (malaria) on the red corpuscles of the blood. It would be an interesting study for microscopists to determine the state of the red corpuscles in malarious fevers, as well as other blood-poison diseases, and so confirm, or otherwise, the views held by the German professor.

Your obedient servant,

December, 1871. E. M.

ALCOHOL IN WORKHOUSES.

Dr. Hitchman, of Chippenham, writes to say that the quantity of alcohol consumed in workhouses varies with the character of the inmates, and he contrasts the Chippenham Workhouse, in which there are 71 sick, with that of Frome, in which there are only 2 patients on the doctor's books. We have no doubt that the consumption of alcohol and the death-rate are both greatly influenced by the character of the inmates, and it is quite fallacious to compare a workhouse with able-bodied inmates, if such are indeed to be found, with one that is full of sick. But the returns on which our remarks on alcoholic beverages were founded applied to the metropolitan workhouses, and to those in which the majority of inmates are either ill or advanced in life, and in these the differences are so great as to suggest that some greater uniformity of practice is desirable.

THE PRINCE OF WALES'S ILLNESS.

To the Editor of THE LANCET.

SIR,—England is not altogether an ungrateful country. The brilliant and accomplished lawyer, the learned divine, the successful financier, the gallant soldier, and the daring navigator, have ever been safe to secure the highest rewards the nation can bestow. The brightest jewel of the Crown but a few years ago was saved by a Clyde, and it is but yesterday that the might of England's power was carried without a check into the wildest highlands of Abyssinia by a Napier. For these heroic deeds peerages and pensions were graceful acknowledgments. What reward, then, can be too great, or what distinction too illustrious, for those men who have, under Providence, restored to England one in whom recent events have so convincingly proved that the whole country—I might say the whole world—evinced such overwhelming interest and affection. No dignity can be misplaced on men who, in the eloquent language of the Rev. Canon Liddon, D.D., "have watched minute by minute, hour by hour, over the future destinies of this country, at the bedside of the Prince of Wales; and the result of whose work, while it is still in higher hands than theirs, yet the manner in which they did that work was a thing of the deepest concern to millions of Englishmen."

I am, Sir, yours, &c.,

Gibraltar, Dec. 29th, 1871. CONSTANS.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. Thompson; Dr. Wilks; Mr. Henry Smith; Dr. Aldis; Mr. Adams; Dr. Sanderson; Mr. Southey; Dr. Sansom; Dr. Waters, Liverpool; Mr. Griffin, Banbury; Dr. Young, Wrington; Mr. Walsh; Mr. Payne; Mr. Barnett; Mr. Moore, King's Norton; Dr. O'Keefe, Widnes; Mr. Crocker, Bingley; Dr. Kay, Bakewell; Dr. Morgan, Bath; Mr. Blyth, Worcester; Dr. Harris, Falmouth; Dr. Harrison, Walsall; Dr. Sutherland, Castlestown; Mr. Farr, Beaufort; Dr. Bagshawe, St. Leonard's-on-Sea; Mr. Warren; Dr. Kerr; Mr. Reid; Dr. Yelf, Moreton-in-Marsh; Mr. Dillon; Mr. Cornish, Madras; Dr. Dewar; Mr. Sandford; Dr. Willoughby; Dr. Burman, Wakefield; Mr. Rugg; Mr. Smith, Blackheath; Mr. Dixon, Nottingham; Dr. Kemp, Castleford; Mr. W. Demaure; Mr. Hogg; Dr. Wybrants, Shepton Mallet; Mr. Chard; Dr. Kitchener, Chippenham; Mr. Walker; Dr. Codrington, Cork; Dr. Nottingham, Liverpool; Mr. Armfield; Dr. Rose, Chesterfield; Dr. Wadham; Mr. Hopwood; Mr. Orchard, Kingussie; Mr. Date, Crewkerne; Mr. Ewens; Dr. Rowe, Margate; Dr. Jones, Carnarvon; Dr. Purvis, Greenwich; Dr. Maclagan, Dundee; Dr. Lacey, Plumstead; Dr. Akerman; Dr. Reed; Dr. Macnaughton, Cork; Mr. Watson; Dr. Aldridge, Clifton; Mr. Munro, Melrose; Dr. Tuckwell, Oxford; Mr. Michell; Dr. Caldwell, Shotto; Dr. Saunders, Exeter; Mr. J. Slidell; Dr. Hunter, Linlithgow; Mr. E. Ward; Dr. Dearden, Church; Mr. Ede; Dr. Kenyon, Folkingham; Dr. Hollis, Yarmouth; Mr. J. Spence, Bedale; Dr. Carr, Scarborough; Mr. Seale; Mr. Bagley; Mr. Court; Mr. Popham; Dr. Dickson, Buxton; Dr. Fraser, South Hampstead; Dr. Allbutt, Leeds; Dr. Cheves, Millbrook; Mr. Clubbe, Lowestoft; Dr. W. H. Jones; Rev. J. M. Vaughan; Dr. Carey, Guernsey; Mr. Knight; Mr. Thomson; Mr. Graves; Mr. Pinyon, Staplehurst; Dr. Houseman, Newcastle; Mr. Stevenson; Dr. H. Osborn, Southampton; Mr. Nasmith, Colchester; Mr. Chater, Uppingham; Mr. Howell; Mr. O. Tulloch, Lochcarron; Mr. Primrose, Dumfries; Mr. Wood, Scarborough; Mr. Davis, Chester; Mr. Bedford, Crick; Mr. Offord, Braintree; Mr. Thompson, Canterbury; Mr. Jennings, Coleford; Mr. Benwell, Waterford; Dr. Marshall, Moulton; Mr. Lawrence, Oldham; Mr. H. Pelham; Mr. Huntley; Mr. M'Intyre, Odiham; Mr. R. Peel, Otley; Mr. G. Porter, Clifton; Dr. Day, Stafford; Mr. Cann, Dawlish; Mr. Robinson; Dr. Daly, Dalston; Mr. Salter; B. A.; Facies; The Editors of the Medical Directory; Beta; A Student; J. B.; E. A. L.; &c. &c.

Newcastle Daily Chronicle, Bridlington Free Press, Scarborough Express, Huddersfield Examiner, Sherborne Journal, Middlesborough Gazette, Cork Constitution, Sussex Express, Civilian, Huddersfield Chronicle, Standard, Schoolmaster, Liverpool Albion, East London Observer, Cork Examiner, West Sussex Gazette, Scotsman, and *Sussex Herald* have been received.

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